BLAUPUNKT RTV-810

MODEL

SERVICE MANUAL

ORDER NO. VRD8811M169

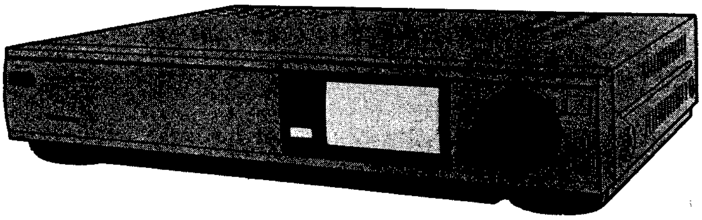
Service Manual

Video Cassette Recorder

Panasonic VHS PAL Hi-Fi HQ

NV-F70EG

General Description
Adjustment Procedures
Block/Schematic Diagrams
Exploded Views/Parts List



SPECIFICATIONS

ITEM	SPECIFICATION
POWER	SOURCE: 220V 50/60Hz
	CONSUMPTION: 30 watts
RECORDING SYSTEM	2 rotary heads, helical scanning system
	PAL
TV TUNER SYSTEM	VHS I : CHE2~CHE12 VHSⅢ : CHS1~CHS10 VHSH: CHS11~CHS41 (PAL/SECAM B) 75Ω unbalanced UHF: CH21~CH69 (PAL/SECAM G) 75Ω unbalanced
RF OUT SYSTEM	UHF: CH36±4 (PAL/SECAM G) 73^{+2}_{-3}dBμ, 75Ω terminated
VIDEO	HEADS: 4 rotary heads 1 pair for recording, playback (L-R heads) 1 pair for trick play (L′-R′ heads)
	INPUT: VIDEO IN Connector (BNC type) 1.0Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0Vp-p, 75Ω terminated
	OUTPUT: VIDEO OUT Connector (BNC type) 1.0Vp-p, 75Ω terminated EURO AV Connector (21 pin) 1.0Vp-p, 75Ω terminated
AUDIO	HEAD: 1 Stationary head (Normal Audio) 2 rotary heads (Hi-Fi 2CH)
	INPUT: AUDIO IN Connector (Phono type) More than −10dBV (316mV), more than 50kΩ EURO AV Connector (21 pin) More than −10dBV (316mV), more than 10kΩ MICROPHONE JACK −70bBV

ITEM	SPECIFICATION
AUDIO	OUTPUT: AUDIO OUT Connector (Phono type) −8dBV (400mV), Less than 1kΩ EURO AV Connector (21 pin) −6dBV (500mV), Less than 1kΩ HEAD PHONE Jack −30dBV, 8Ω
	TRACK: 1 track (Normal-mono only) 2 channels (Hi-Fi Sound-Stereo)
TAPE FORMAT	VHS Cassette tape (Tape width 12.7mm)
TAPE SPEED	SP: 23.39mm/s LP: 11.695mm/s Record/Playback Time: SP: 4 hours with 240min. type tape LP: 8 hours with 240min. type tape FF/REW Time 3.0min. with 180min. type tape
DIMENSIONS	430(W) × 86(H) × 376(D) mm
WEIGHT	6.0kg
STANDARD ACCESSORIES	1 pc. DIN-RF Cable 1 pc. Infra-red remote controller (Build in Digital Scanner type) 2 pc. Audio Cables 1 pc. Programme sheet 1 pc. AC Mains Lead

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

Panasonic

Matsushita Electric Industrial Co., Ltd.
Central P.O. Box 288, Osaka5 30-91, Japan

INTRODUCTION

This service manual contains technical information which will allow service personnels to understand and service this model.
Section 1 presents you with some general information of features and controls, enabling you to become familiar with each function.
Section 2 contributes to your mechanical and electrical adjustment as well disassembly and replacement procedures.
In the case of very common information relating to other models like mechanical adjustments, please refer to each service manual.
Section 3 contains block diagrams which offers you information for checking and understanding each circuit. Schematic diagrams which give you detailed information such as waveforms, voltage data, function e.t.c...
Section 4 contains exploded views and parts list.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, this information will be followed by supplementary service manual to be filed with original service manual.

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MECHANICAL REPLACEMENT PARTS LIST
ELECTRICAL REPLACEMENT PARTS LIST

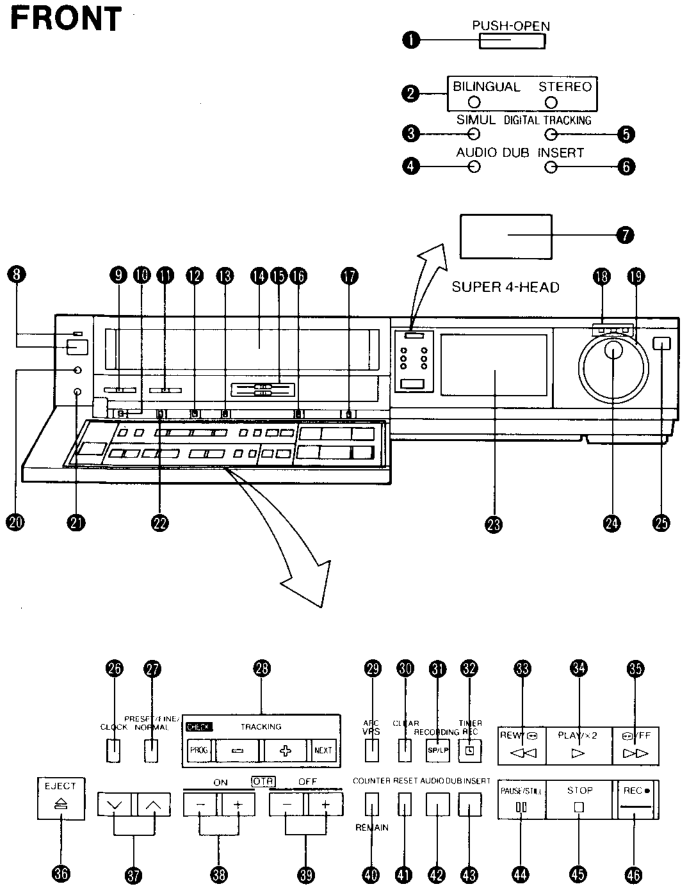
REMARKS

1. It is possible to receive, record and playback colour broadcasts from East Germany (DDR) on this video recorder.
2. When a video tape that was recorded with a colour TV broadcast from East Germany on this VTR is played back on a SECAM (France) or a PAL VTR, the picture may be in black and white.
3. When a video tape recorded on a SECAM (France) VTR or a SECAM (France) pre-recorded video tape is played back on this VTR, the picture is in black and white.

SECTION 1
GENERAL DESCRIPTIONS

1-1. CONTROLS & COMPONENTS

FRONT


PUSH-OPEN
BILINGUAL
STEREO
SIMUL
DIGITAL TRACKING
AUDIO DUB
INSERT
SUPER 4-HEAD
CLOCK
PRESET
FINE/NORMAL
CHECK
TRACKING
PROG
NEXT
AFC VPS
CLEAR
RECORDING
TIMER REC
SP/LP
REW
PLAY/×2
FF
EJECT
ON
OTR
OFF
COUNTER RESET
AUDIO DUB INSERT
REMAIN
PAUSE/STILL
STOP
REC●

❶ Control Panel Open Button

❷ Audio Recording Mode Indicators

❸ Simulcast Indicator

❹ Audio Dubbing Indicator

❺ Digital Tracking Indicator

❻ Insert Editing Indicator

❼ Infra-red Remote Control Receiver

❽ VTR On/Off Switch with Indicator

❾ Headphones Output Level Control

❿ Noise Filter/Edit Selector

⓫ Picture Sharpness Control

⓬ Hi-Fi/Normal Mix Switch

⓭ Digital Tracking Selector

When this selector is selected for "ON" and Tracking (+) and (−) button is pressed simultaneously, unit will search the best tracking position automatically. During searching , Digital tracking indicator will be flashing .
In the case of "OFF" position , when (+) and (−) button is pressed simultaneously , tracking is set for "electrical centre fix position" automatically.

⓮ Cassette Compartment

⓯ Audio Rec Level Controls (L/R)

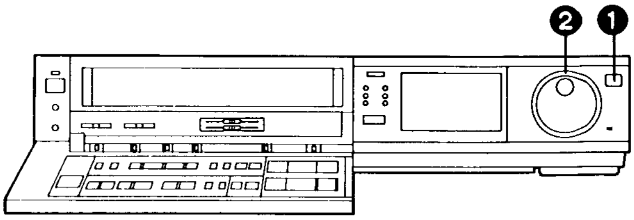
⓰ Tape Select Switch

⓱ Input Signal Selector

⓲ Jog/Shuttle Indicator

⓳ Shuttle Ring

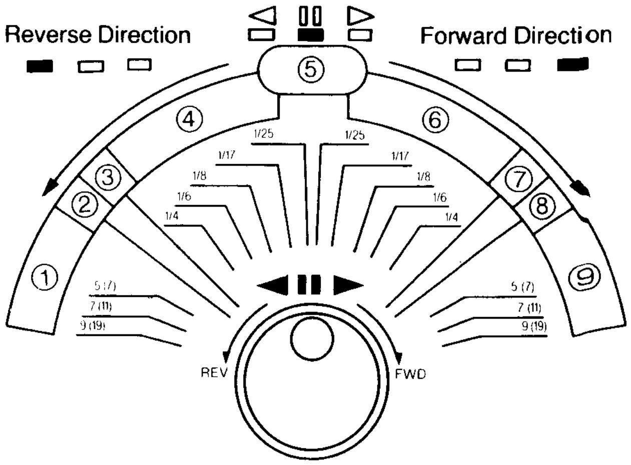
With the handy Shuttle Ring, the playback speed can be adjusted step by step in both forward and reverse directions.



❶ When the VTR is in the stop or playback mode, press the Jog/Shuttle Button (the playback will start at the speed that corresponds with the setting of the Shuttle Ring).

❷ Turn the Shuttle Ring to select the desired playback speed and direction.

Shuttle Ring Setting and Corresponding Playback Speed and Direction


Reverse Direction
Forward Direction
①
②
③
④
⑤
⑥
⑦
⑧
⑨
1/25
1/17
1/8
1/6
1/4
5(7)
7(11)
9(19)
REV
FWD

① Review Playback

② Double Speed Reverse Playback

③ Reverse Playback

④ Reverse Slow Motion Playback

⑤ Still Playback

⑥ Slow Motion Playback

⑦ Normal Playback

⑧ Double Speed Playback

⑨ Cue Playback

- **The Figures on the Shuttle Ring Scale Indicate Multiples and Fractions of the Normal Playback Speed.**
  The Cue and Review playback speed will be different for recordings made in the SP and LP mode. The figures in parenthesis ( ) indicate the speed for recordings made in the LP mode.
- If Cue or Review playback continues for more than 10 minutes or if the Still playback continues for more than 5 minutes, the VTR will automatically switch over to the stop mode.
- To return to normal playback, press the Play Button or the Jog/Shuttle Button.

Using the Remote Controller

When the Search Button is pressed during playback, a still picture will be reproduced. The (+) and (−) Buttons have the same functions as the Shuttle Ring:

+ : In forward direction.
− : In reverse direction.

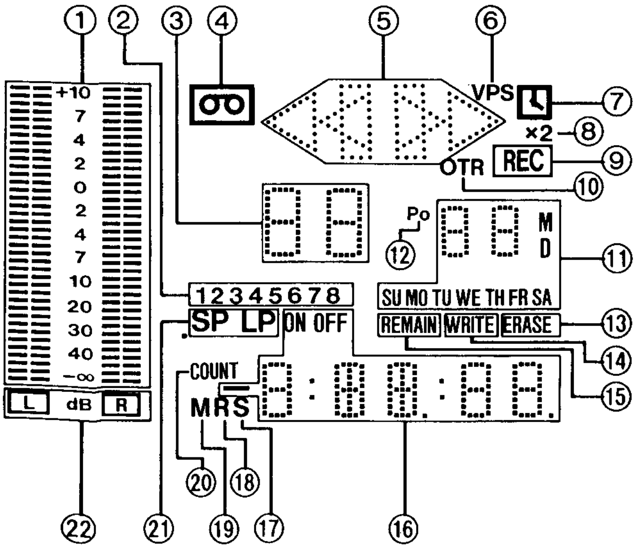
- When the Search Button is pressed again, the search function will be cancelled.

⑳ Microphone Input Socket

㉑ Headphones Socket

㉒ MPX Filter Switch

㉓ Multi-Function Display



① Audio Level Meter

② Timer Programme Number

③ Channel Display

④ Cassette-in Indicator

⑤ Tape Running Display

⑥ VPS Indicator

⑦ Timer Recording Indicator

⑧ Double Speed Indicator

⑨ Recording Indicator

⑩ OTR Indicator

⑪ Date Display

⑫ Position Indicator

⑬ Erase Indicator

⑭ Write Indicator

⑮ Remaining Tape Time Indicator

⑯ Tape Counter Indicator

⑰ Search Indicator

⑱ Repeat Indicator

⑲ Memory Indicator

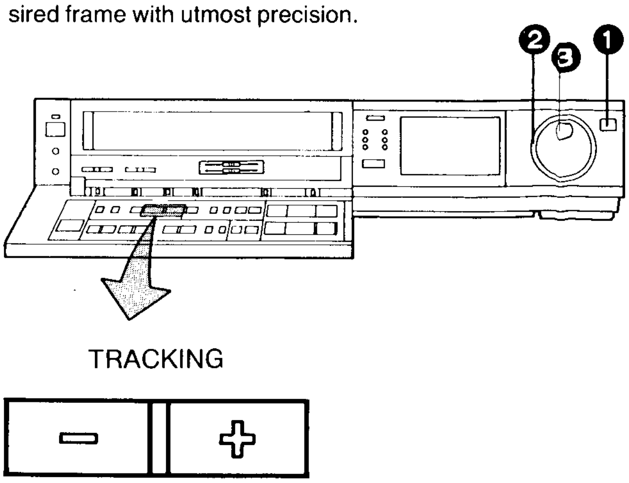
⑳ Counter Mode Indicator

㉑ Tape Speed Indicator

㉒ Audio Playback Mode Indicators

㉔ Jog Dial

The convenient Jog Dial makes it easy to locate any desired frame with utmost precision.



❶ Press the Jog/Shuttle Button while the VTR is in the stop mode or in the playback mode.

❷ Return the Shuttle Ring to the center "click" position (Still playback mode).

❸ Turn the Jog Dial clockwise or counterclockwise.
- The field advance speed changes according to the speed with which the dial is turned.

Turning the Jog Dial
- Every turn of approx. 30° will advance or reverse the tape by one field.
- A turning speed of the Jog Dial of more than 5 rotations per second corresponds to the normal playback speed.

Slow Tracking Control
- When noise bars appear during Super Still, Super Still Advance or Super Fine Slow playback, switch over to Slow playback and adjust with the Tracking (+) or (−) Button to reduce the noise bars.
- It may not be possible to eliminate the noise bars completely.

㉕ Jog/Shuttle Button

㉖ Clock Button

㉗ Preset/Fine/Normal Button

㉘ Timer Controls

㉙ AFC/VPS Button

㉚ Clear Button

㉛ Tape Speed Button

㉜ Timer Record Button

㉝ Rewind ◀◀/Review ⧏ Button

㉞ Play/×2 Button

㉟ Fast Forward ▶▶/Cue ⧐ Button

㊱ Eject Button (▲)

㊲ Channel Selection Up and Down Buttons

㊳ OTR On Buttons

㊴ OTR Off Buttons

㊵ Counter/Remaining Tape Time Selector

㊶ Reset Button

㊷ Audio Dubbing Button

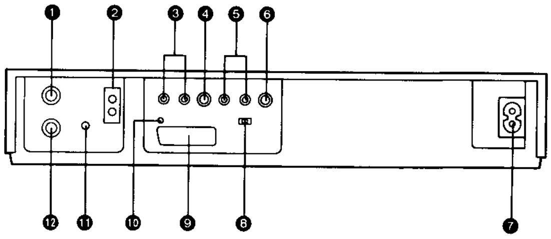
㊸ Insert Editing Button

㊹ Pause/Still Button (❚❚)

㊺ Stop Button (■)

㊻ Record Button (●)

REAR



❶ RF Output Socket

❷ Vertical Lock Controls

❸ Audio Input Sockets

❹ Video Input Socket

❺ Audio Output Sockets

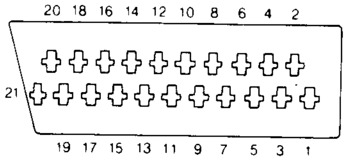
❻ Video Output Socket

❼ AC Mains Lead Socket

❽ Test Signal Switch

❾ Euro AV Socket

Connections of the Euro AV Socket



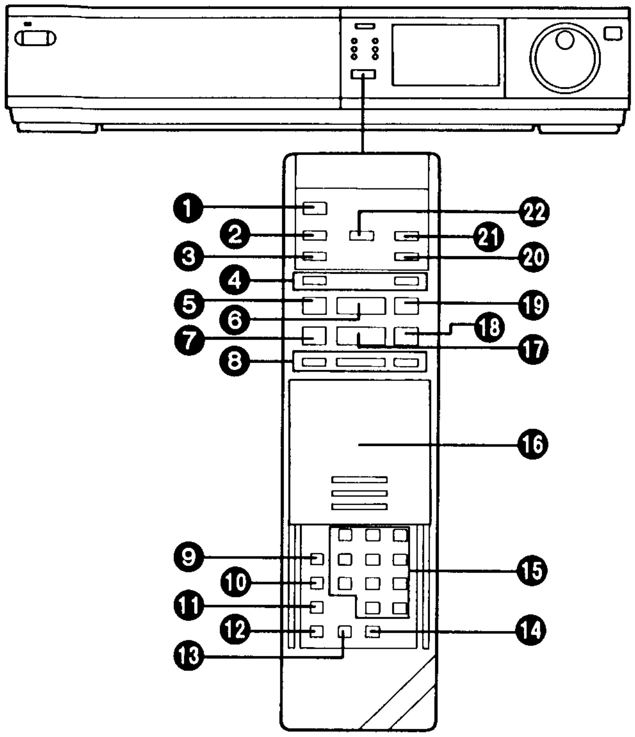
1	AUDIO OUTPUT CH2 (R)
2	AUDIO INPUT CH2 (R)
3	AUDIO OUTPUT CH1 (L)
4	AUDIO GND
5	No connection
6	AUDIO INPUT CH1 (L)
7	No connection
8	SWITCHING VOLTAGE
9	No connection
10	No connection
11	No connection
12	No connection
13	No connection
14	No connection
15	No connection
16	No connection
17	VIDEO GND
18	No connection
19	VIDEO OUTPUT
20	VIDEO INPUT
21	GND

❿ Synchro Edit Socket

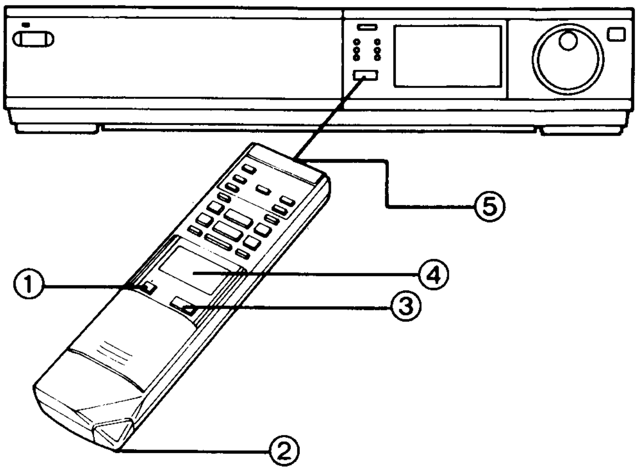
⓫ Video Playback Channel Selector

⓬ RF Input Socket

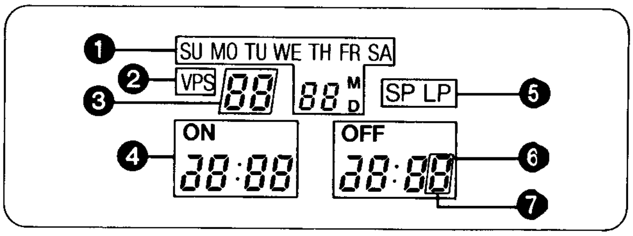
1-2. INFRA-RED REMOTE CONTROLLER


❶
❷
❸
❹
❺
❻
❼
❽
❾
❿
⓫
⓬
⓭
⓮
⓯
⓰
⓱
⓲
⓳
⓴
㉑
㉒

- ❶ **VTR On/Off Button**
- ❷ **Clock Counter Selector**
- ❸ **Audio Output Selector**
- ❹ **Record Buttons (●)**
- ❺ **Pause/Still Button (❚❚)**
- ❻ **Stop Button (■)**
- ❼ **Rewind ◀◀/Review [◀◀] Button**
- ❽ **Search Buttons**
- ❾ **Time Search Button**
- ❿ **Monitor Button**
- ⓫ **Remaining Tape Time Button**
- ⓬ **Index Button**
- ⓭ **Write Button**
- ⓮ **Erase Button**
- ⓯ **Programme Position (Channel) Selector Buttons**
- ⓰ **Mode Selector Cover**
- ⓱ **Play/×2 Button (▶)**
- ⓲ **Fast Forward ▶▶/Cue [▶▶] Button**
- ⓳ **Still Advance Button (II▶)**
- ⓴ **Reverse Play Button**
- ㉑ **Memory/Search Button**
- ㉒ **Reset/Index Button**



- ① **Digital Scanner On/Off Switch**
- ② **Bar Code Reading Section**
- ③ **Transmit Button**
- ④ **Bar Code Reader Display**


SU MO TU WE TH FR SA
VPS
88
88
M
D
SP LP
ON
88:88
OFF
88:88
❶
❷
❸
❹
❺
❻
❼

- ❶ Date Display
- ❷ VPS Indicator
- ❸ Channel Display
- ❹ Start Time Display
- ❺ Tape Speed Indicator
- ❻ End Time Display
- ❼ Check Indicator

- ⑤ **Transmitting Section**

SECTION 2

ADJUSTMENT PROCEDURES

2-1. DISASSEMBLE METHOD

2-1-1. DISASSEMBLY FLOW CHART

This flowchart indicates disassembly steps of the cabinet parts and the circuit boards in order to find the necessary items for servicing.
When reassembling, perform the steps in the reverse order.

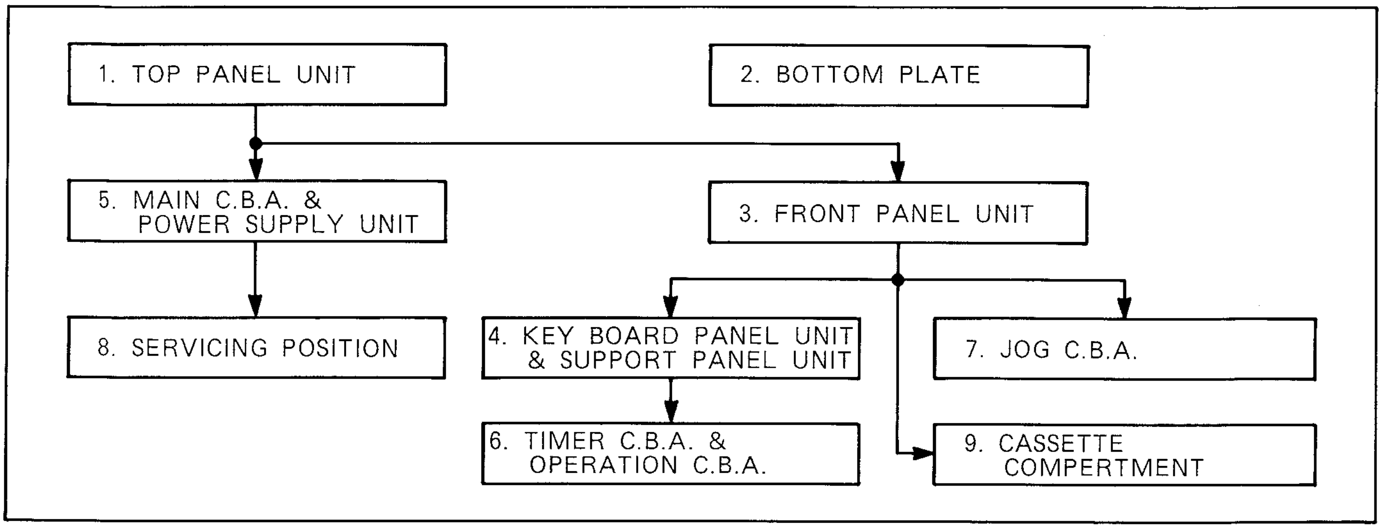

1. TOP PANEL UNIT
2. BOTTOM PLATE
5. MAIN C.B.A. & POWER SUPPLY UNIT
3. FRONT PANEL UNIT
8. SERVICING POSITION
4. KEY BOARD PANEL UNIT & SUPPORT PANEL UNIT
7. JOG C.B.A.
6. TIMER C.B.A. & OPERATION C.B.A.
9. CASSETTE COMPERTMENT

Fig. D1

2-1-2. DETAIL OF DISASSEMBLE METHOD

1. REMOVAL OF THE TOP PANEL UNIT

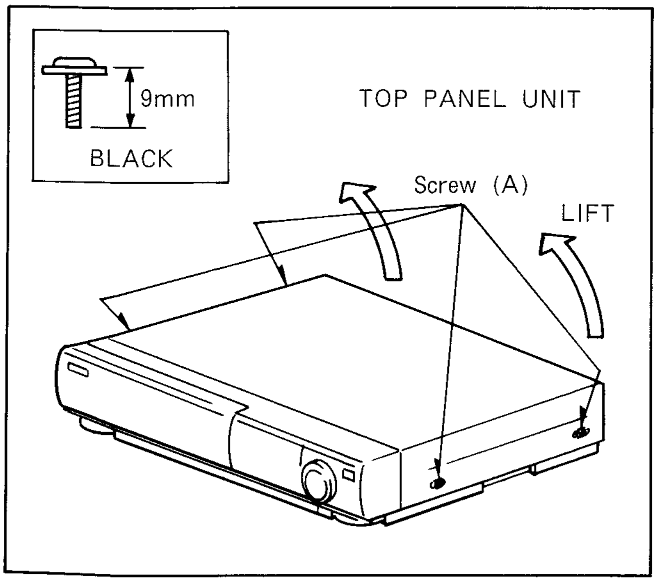

9mm
BLACK
TOP PANEL UNIT
Screw (A)
LIFT

Fig. D2

Remove...4 Screws (A)

2. REMOVAL OF THE BOTTOM PLATE

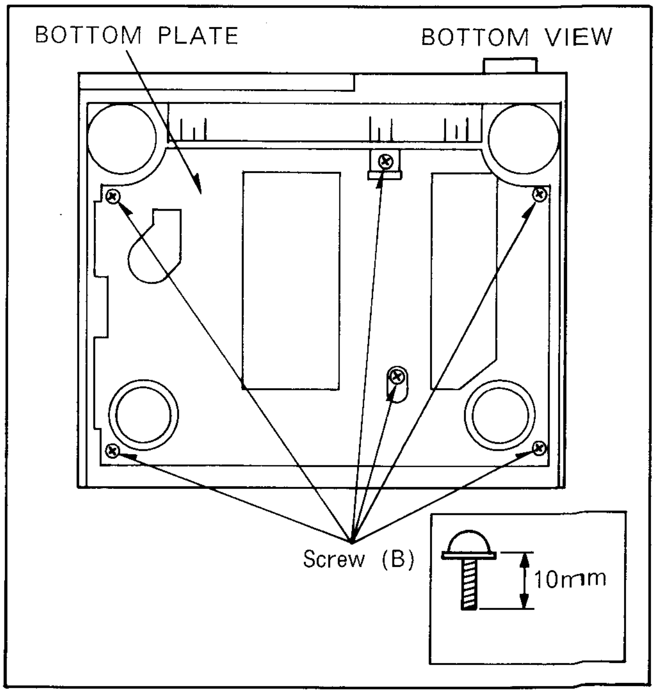

BOTTOM PLATE
BOTTOM VIEW
Screw (B)
10mm

Fig. D3

Remove...6 Screws (B)

3. REMOVAL OF THE FRONT PANEL UNIT

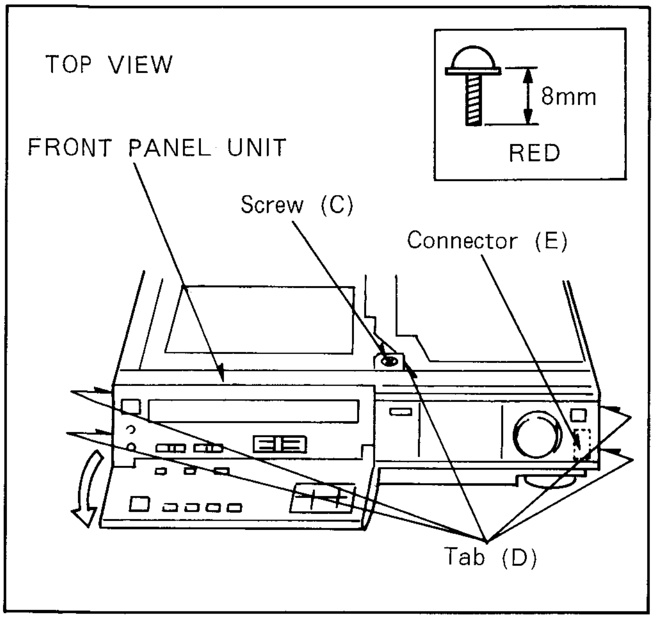

TOP VIEW
8mm
RED
FRONT PANEL UNIT
Screw (C)
Connector (E)
Tab (D)

Fig. D4

Remove...Screw (C)
Unlock...5 Tabs (D)
Disconnect...Connector (E)

4. REMOVAL OF THE KEY BOARD PANEL UNIT AND SUPPORT PANEL UNIT

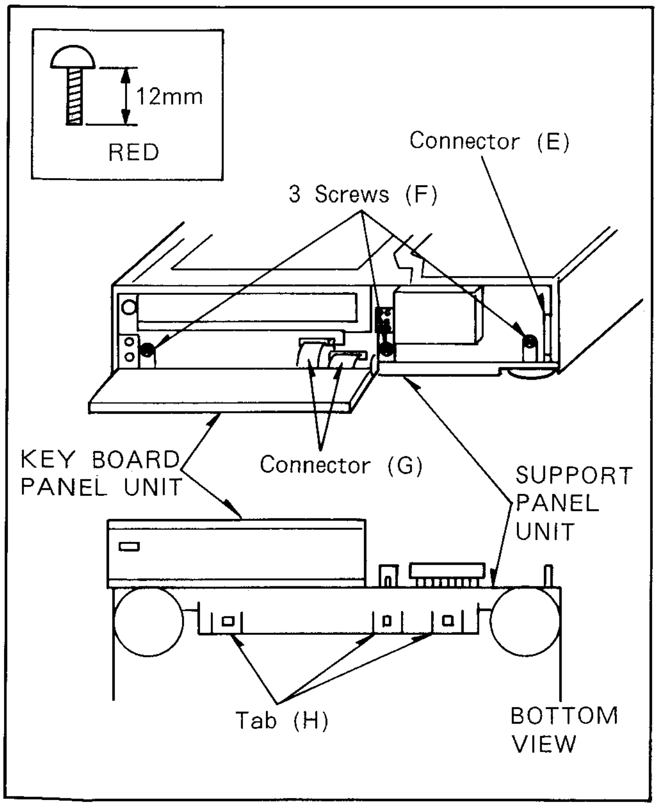

12mm
RED
Connector (E)
3 Screws (F)
KEY BOARD PANEL UNIT
Connector (G)
SUPPORT PANEL UNIT
Tab (H)
BOTTOM VIEW

Fig. D5

Remove...3 Screws (F)
Disconnect...2 Connectors (G)
Unlock...3 Tabs (H)

5. REMOVAL OF THE MAIN C.B.A. AND POWER SUPPLY UNIT

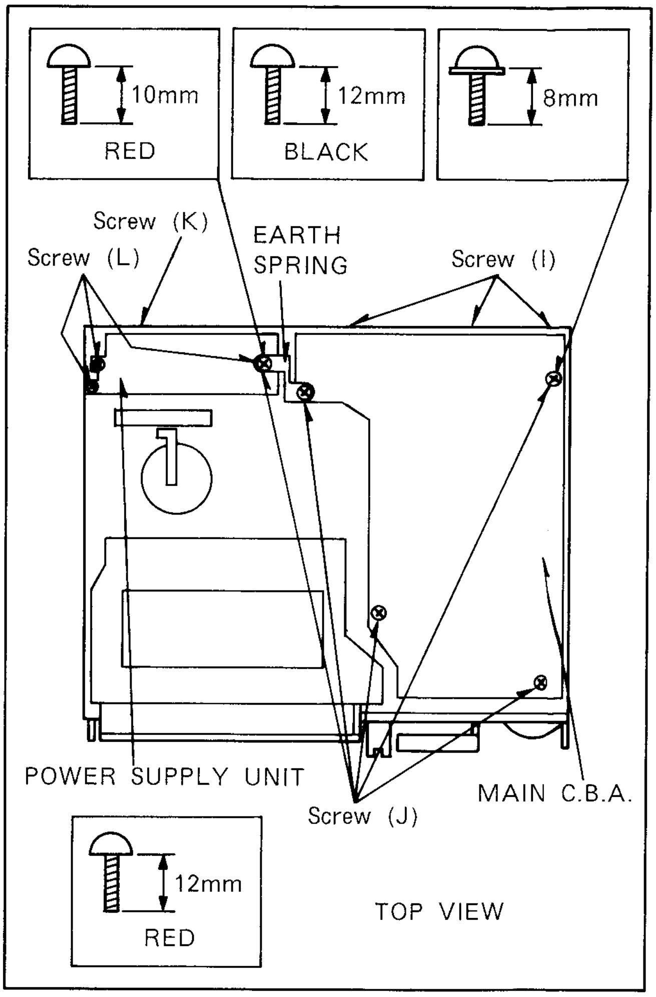

10mm
RED
12mm
BLACK
8mm
Screw (K)
Screw (L)
EARTH SPRING
Screw (I)
POWER SUPPLY UNIT
MAIN C.B.A.
Screw (J)
12mm
RED
TOP VIEW

Fig. D6

REMOVAL OF THE MAIN C.B.A.

Remove... 3 Screws (I), 5 Screws (J) and EARTH SPRING

REMOVAL OF THE POWER SUPPLY UNIT

Remove... Screw (K), 3 Screws (L) and EARTH SPRING

6. REMOVAL OF THE OPERATION C.B.A. and TIMER C.B.A.

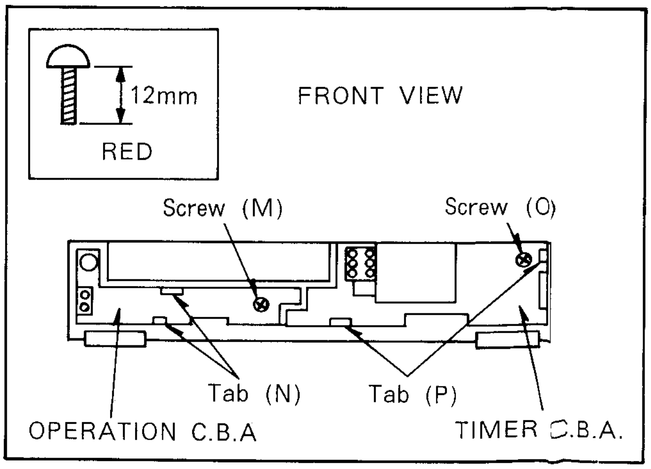

12mm
RED
FRONT VIEW
Screw (M)
Screw (O)
Tab (N)
Tab (P)
OPERATION C.B.A
TIMER C.B.A.

Fig. D7

REMOVAL OF THE OPERATION C.B.A.

Remove...Screw (M)
Unlock...2 Tabs (N)

REMOVAL OF THE TIMER C.B.A.

Remove...Screw (O)
Unlock...2 Tabs (P)

7. REMOVAL OF THE JOG C.B.A.

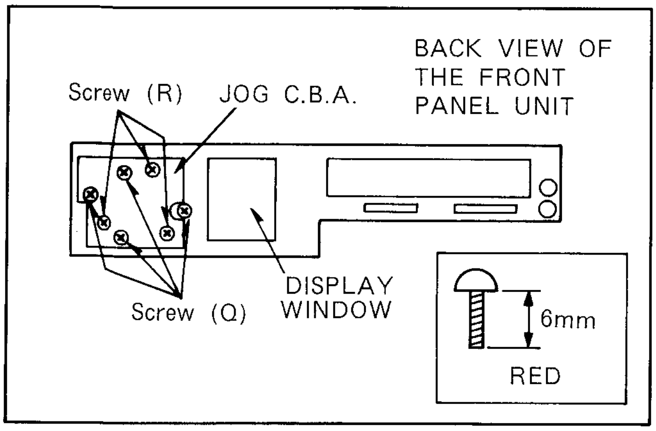

BACK VIEW OF THE FRONT PANEL UNIT
Screw (R)
JOG C.B.A.
DISPLAY WINDOW
Screw (Q)
6mm
RED

Fig. D8

Remove...4 Screws (Q)
(3 screws (R)...For the JOG DIAL)

8. SERVICING

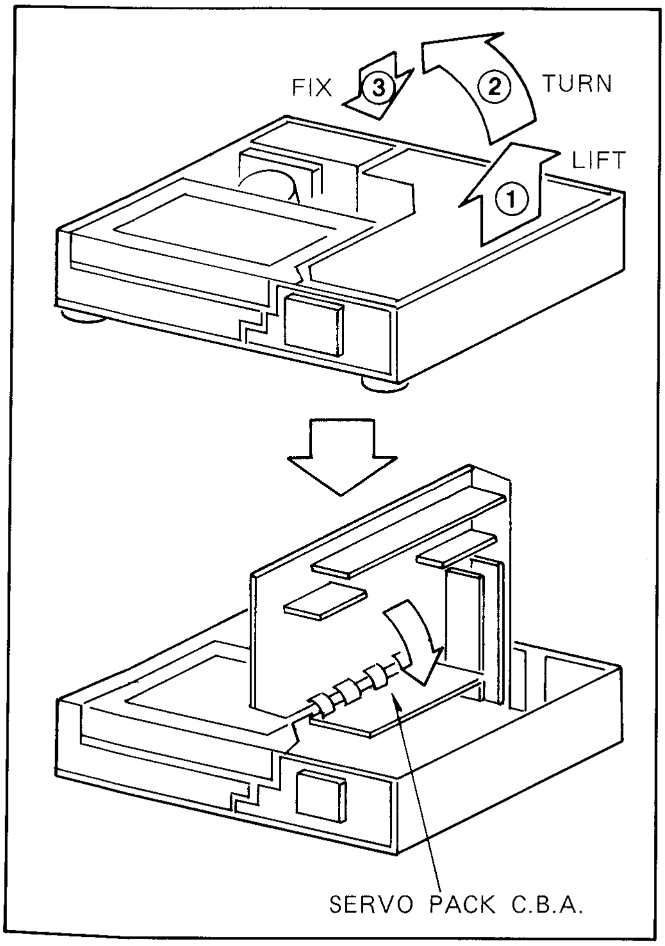

FIX
③
②
TURN
LIFT
①
SERVO PACK C.B.A.

Fig. D9

9. REMOVAL OF THE CASSETTE COMPERTMENT

Remove 2 screws (S) and slide the cassette holder until appearing 2 screws (T) by turning (clockwise) the capstan rotor unit (located in the bottom side) and then remove 2 screws (T).
Remove the flexible wire from connector P1503 mounted on Take–up photo Tr. C.B.A., then carefully pull out the cassette compartment.

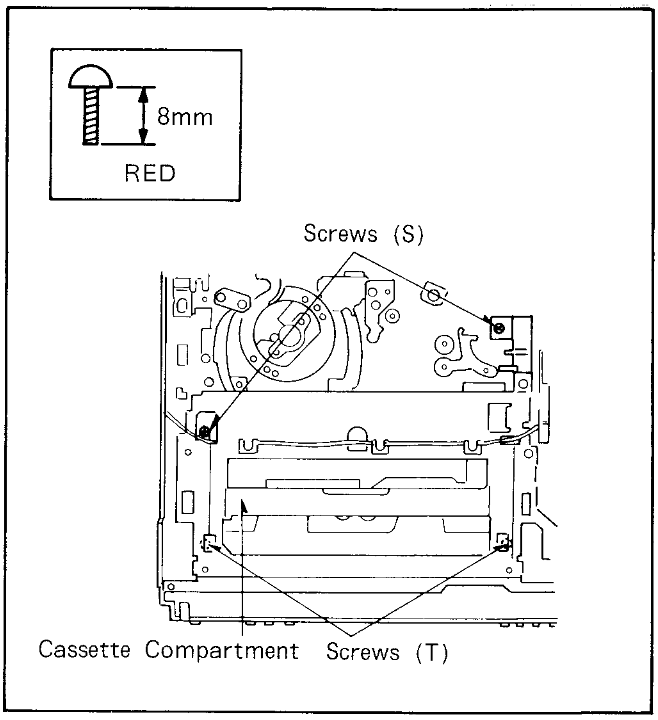

8mm
RED
Screws (S)
Cassette Compartment
Screws (T)

Fig. D10

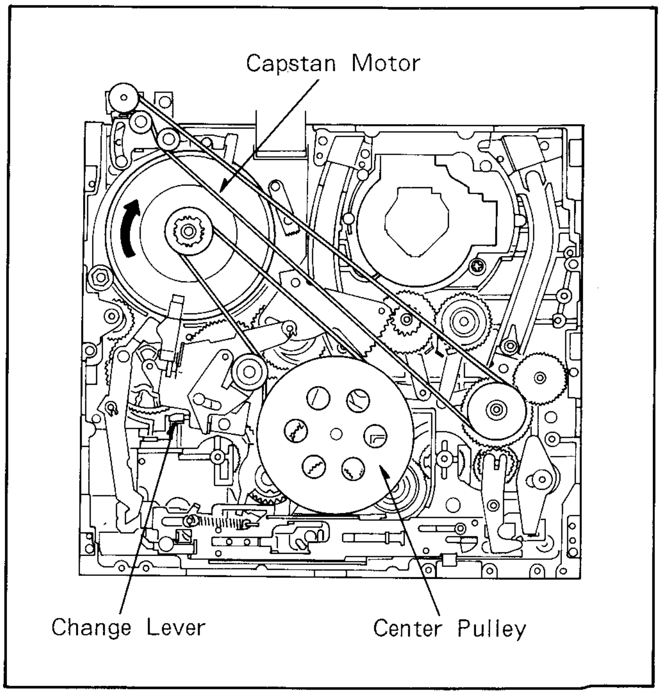

Capstan Motor
Change Lever
Center Pulley

Fig. D11

2-2. MECHANICAL ADJUSTMENT PROCEDURES

2-2-1. TENSION ADJUSTMENT OF TIMING BELT FOR CAPSTAN MOTOR

(Equipment Required)
Fan Type Tension Gauge (VFK62)

(Specification) 40 +– 5g

1. Loosen a screw (A) slightly by using the screwdriver.
2. Set the Fan Type Tension Gauge to the direction indicated by the arrow (B) as shown in Fig. M1.
3. Tighten a screw (A) when the reading of the Fan Type Tension Gauge becomes within 40 +– 5g.

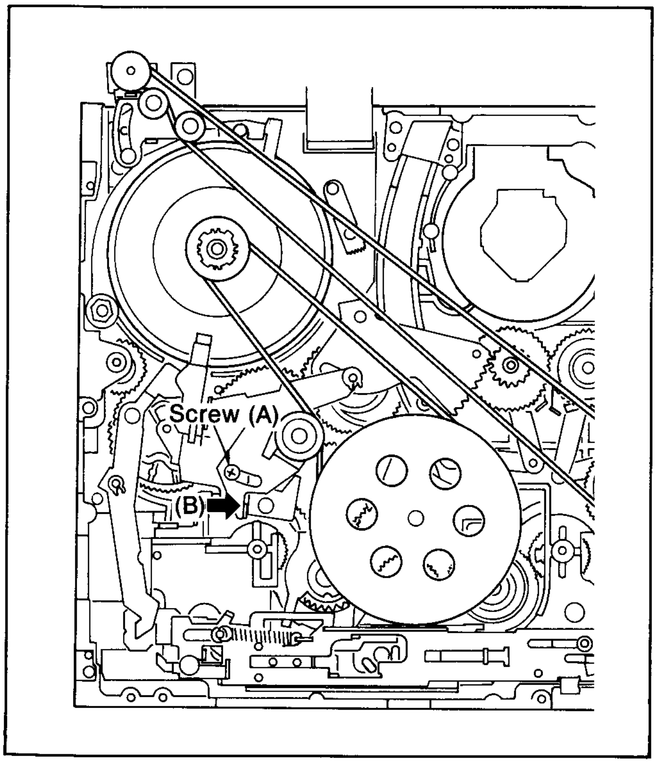


Fig. M1

2-2-2. TENSION ADJUSTMENT FOR REV MOTOR TIMING BELT

(Equipment Required)
Fan Type Tension Gauge (VFK62)

(Specification) 225 +– 25g

1. Loosen a screw (C) by using the screwdriver.
2. Set the Fan Type Tension Gauge to the direction indicated by arrow (D) as shown in Fig. M2.
3. Tighten a screw (C) when the reading of the Fan Type Tension Gauge becomes within 225 +– 25g.

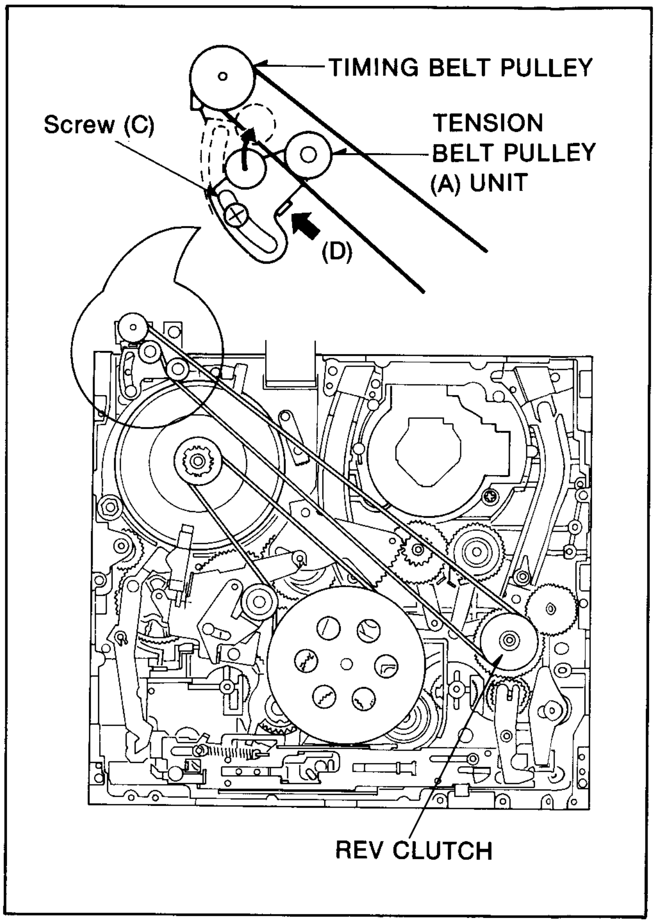


Fig. M2

2-2-3. POSITION ADJUSTMENT OF TENSION POST

(Equipment Required)
Tension Post Adjustment Plate (VFK0387)
Hex. Wrench : 2mm (Hex Wrench Set : VFK0326)

1. Disconnect the AC plug.
2. Remove the cassette compartment and disconnect the flexible (flat) cable from P1508.
3. Turn the Capstan Motor to the clockwise while the change lever is being pushed until the loading is completed as shown in Fig. M3.

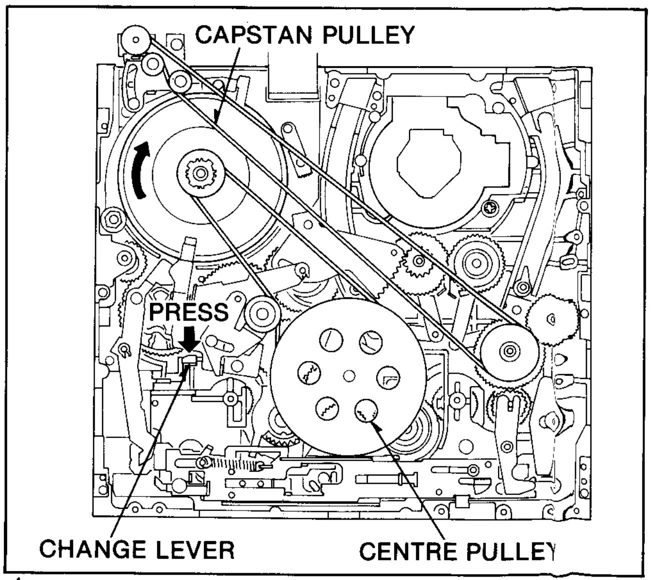


Fig. M3

4. Place the Adjustment Plate and insert the hex wrench into the hole of Tension Band Fastener as shown in Fig. M4.

5. Adjust the hole of Tension Band Fastener by using the hex wrench so that the Tension Post just touches the fixture of Adjustment Plate.
6. After the Adjustment, turn the Capstan Motor until the unloading is completed.

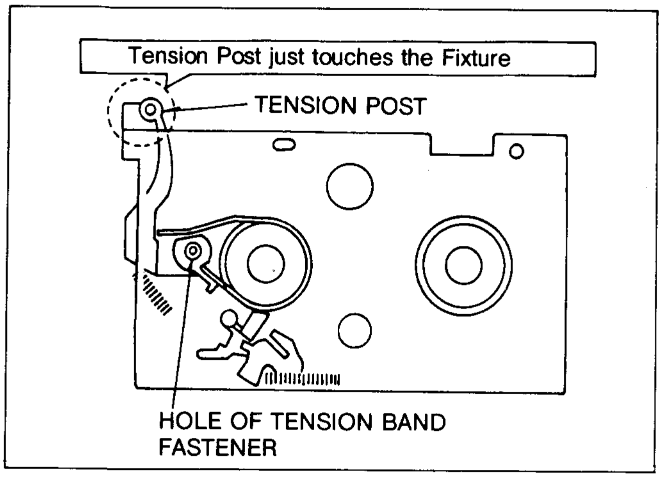

Tension Post just touches the Fixture
TENSION POST
HOLE OF TENSION BAND FASTENER

Fig. M4

Note:
When you assemble cassette compartment,refer to item 2–3–13 Reinstallation of Cassette Compartment.

2-2-4. MEASUREMENT AND ADJUSTMENT OF BACK TENSION

(Equipment Required)
Back Tension Meter (Tentelometer or VFK0132)
VHS Cassette Tape (180 minutes tape: PAL/SECAM)
(specification) 20–25g

1. Playback the cassette tape from the beginning and wait until the tape movement get the stabilization. (for approx. 10~20 seconds)
2. Insert the Back Tension Meter into the path of a tape, and measure the back tension to be within specification as shown in Fig. M5.

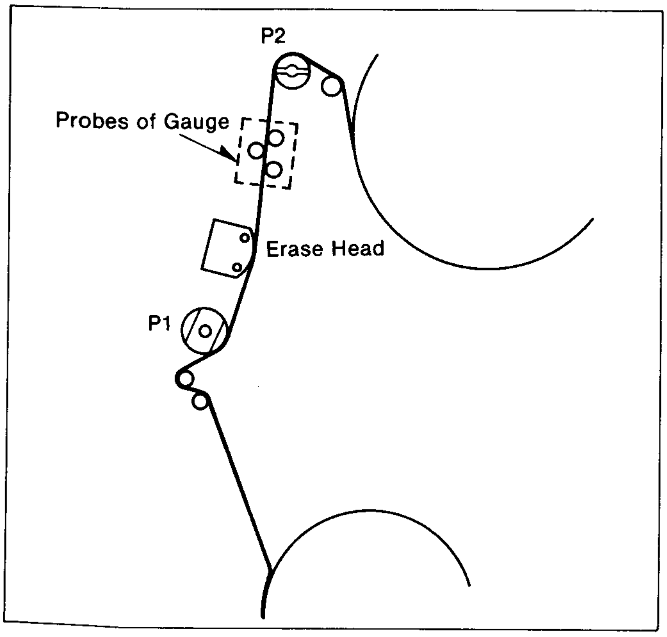


Fig. M5 Measurement of Back Tension

Note:
1. While measuring, make sure that the three probes of the meter are all in good contact with the tape.
2. As the tension meter is very sensitive, we recommend taking 3 separate readings.
3. If it is out of specification, change the spring notch as shown in Fig. M6.

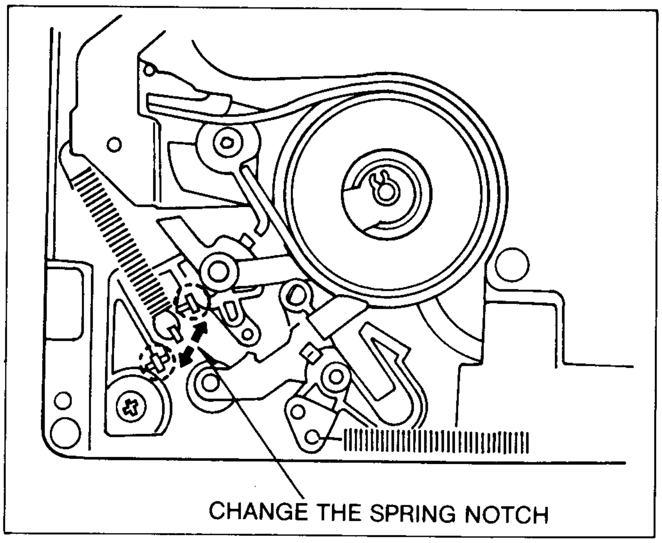


Fig. M6

2-2-5. HEIGHT ADJUSTMENT OF THE REEL TABLES

(Equipment Required)
Post Adjustment Plate
(VFK0191/Tool Kit(PAL):VFK0283)
Reel Table Height Gauge (VFK0190)

(Specification) 0~0.2mm

1. Remove the cassette compartment.
2. Place the Post Adjustment Plate on the reel tables.
3. Place the Reel Table Height Gauge on the plate so that the scraper of the gauge touches the cut–out portion of the plate, then set the gauge to zero "0" as shown in Fig. M7.

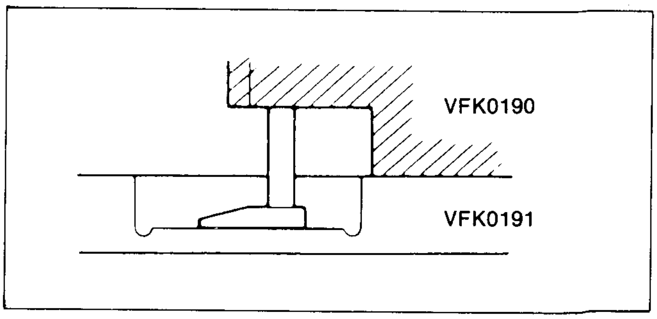


Fig. M7 Adjustment of Reel Table Height–(1)

4. Measure the meter indication of top surface of reel table as shown in Fig. M8. And then perform the same measurement and confirmation for the other reel table.

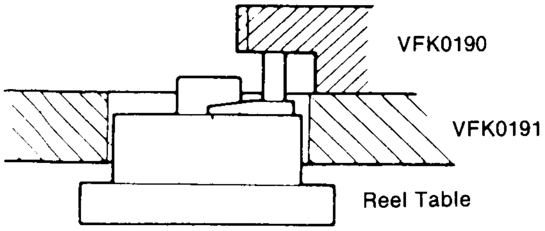

VFK0190
VFK0191
Reel Table

Fig. M8 Adjustment of Reel Table Height−(2)

5. If the difference is more than 0.2mm higher or lower, replace the poly−slider washer located under the reel table with one of the appropriate thickness. Reel washers are available in thickness of 0.2mm, 0.3mm and 0.5mm.

Washer Thickness	Part No.
0.2 mm	VMX1238
0.3 mm	VMX1239
0.5mm	VMX1171

Fig. M9

2-2-6. ADJUSTMENT OF THE CAPSTAN THRUST GAP

(Equipment Required)
Reel Table Height Gauge (VFK0190)
Height Adjustment Jig
(VFK0344/Tool Kit(PAL):VFK0283)

(Specification) 0.5 ~ 0.55mm

1. Turn a Thrust Adjust Screw slightly until the capstan rotor unit just touches the coil of the capstan stator unit.

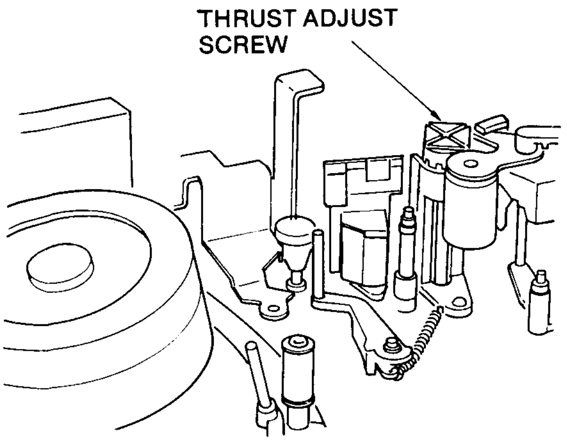

THRUST ADJUST SCREW

Fig. M10

2. Set the height adjustment Jig on the capstan Rotor unit.
3. Place the height gauge on the bottom case unit and set the height gauge to zero "0".

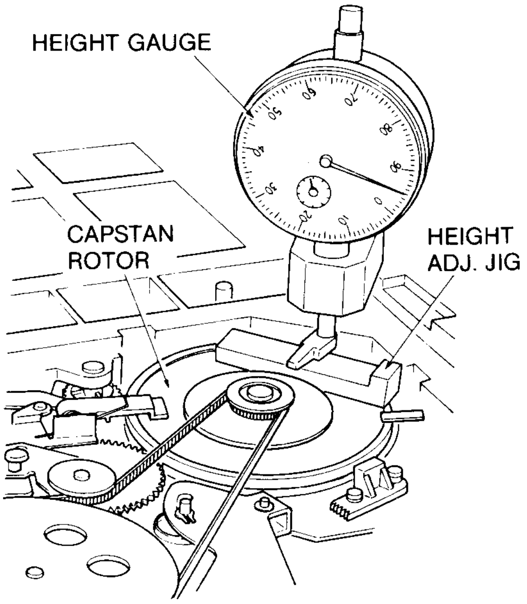

HEIGHT GAUGE
CAPSTAN ROTOR
HEIGHT ADJ. JIG

Fig. M11

4. Adjust a Thrust Adjust Screw so that the thrust gap becomes 0.5 ~ 0.55mm.

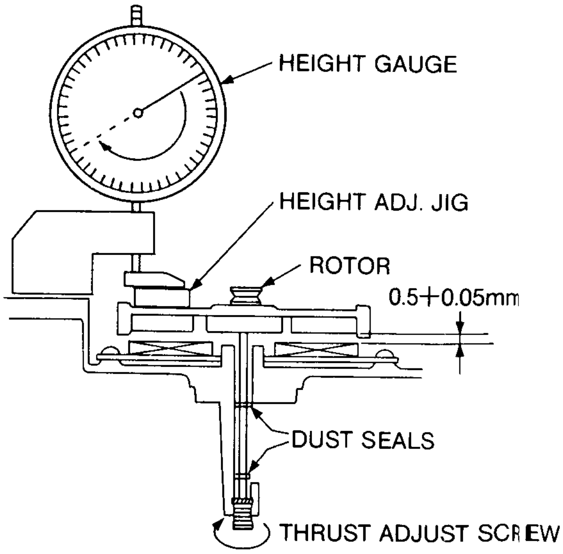

HEIGHT GAUGE
HEIGHT ADJ. JIG
ROTOR
0.5+0.05mm
DUST SEALS
THRUST ADJUST SCREW

Fig. M12

2-2-7. HEIGHT ADJUSTMENT OF TAPE GUIDE POST (P2 AND P3)

(Equipment Required)
Post Adjustment Plate
(VFK0191/Tool Kit(PAL):VFK0283)
Reel Table Height Gauge (VFK0190)
Post Adjustment Screwdriver
(VFK0329/Tool Kit(PAL):VFK0283)

1. Remove the cassette compartment.
2. Place the Post Adjustment Plate over the reel tables.
   Confirm that the Post Adjustment Plate is firmly seated as shown in Fig. M13.

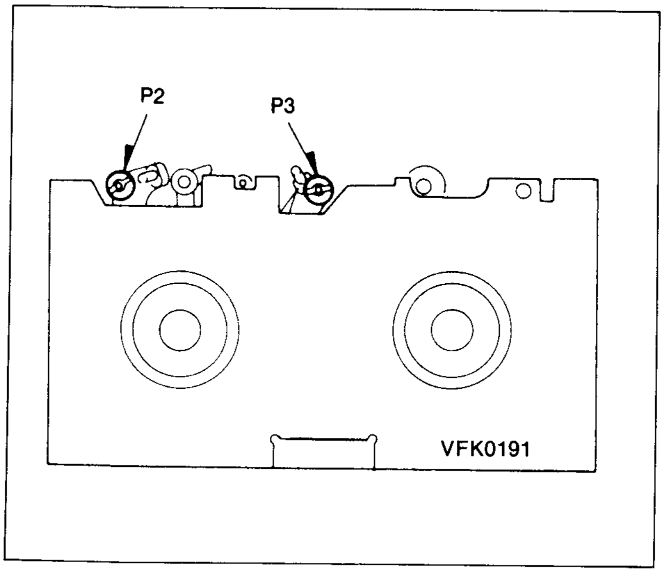
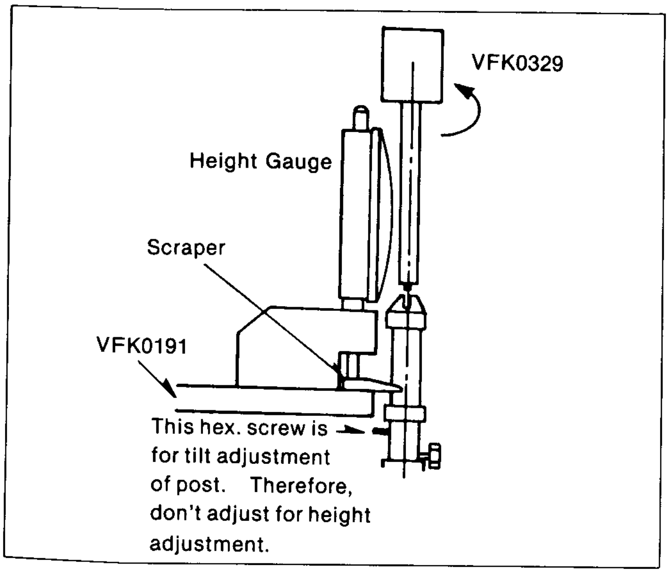


Fig. M13

3. Lower 2 tape guide posts (P2 and P3) by turning the Post Adjustment screwdriver so that the condition of height becomes as shown in Fig. M14. That is, the lower edge of Tape guide should be lower than surface of Adjustment Plate.



This hex. screw is for tilt adjustment of post. Therefore, don't adjust for height adjustment.

Fig. M14

4. Place the scraper of Reel Table Height Gauge as shown in Fig. M15.
   Set the gauge to zero, then raise the post slowly until the lower tape guide just touches the bottom of the scraper. Use the gauge to determine the exact point at which the lower tape guide touches the scraper.

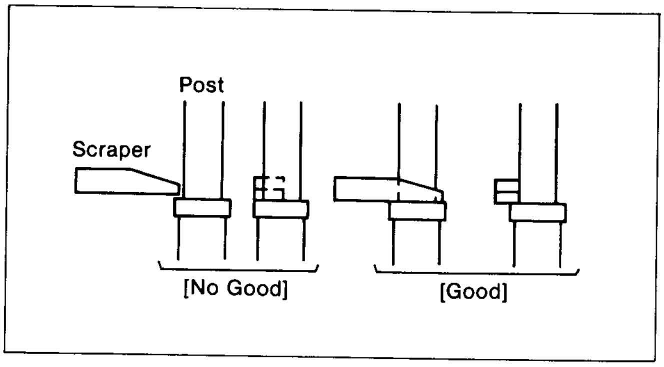


Fig. M15

Note:
After the adjustment, install the cassette compartment referring the item 2–3–13 Reinstallation of cassette compartment.

2-2-8. HEIGHT ADJUSTMENT OF THE PULL-OUT POST (P5 POST)

(Equipment Required)
Post Adjustment Plate
(VFK0191/Tool Kit(PAL):VFK0283)
Reel Table Height Gauge (VFK0190)
Nut Driver (Purchase locally)

(Specification) −0.06 +− 0.01mm

Note:
Unless the replacement or adjustment of this post is required, the adjustment nut should not be turned.

1. Remove the cassette compartment.
2. Place the Post Adjustment Plate over the reel tables.
3. Turn the Capstan Motor to counterclockwise (loading direction) until the mechanical condition becomes as shown in Fig. M16.

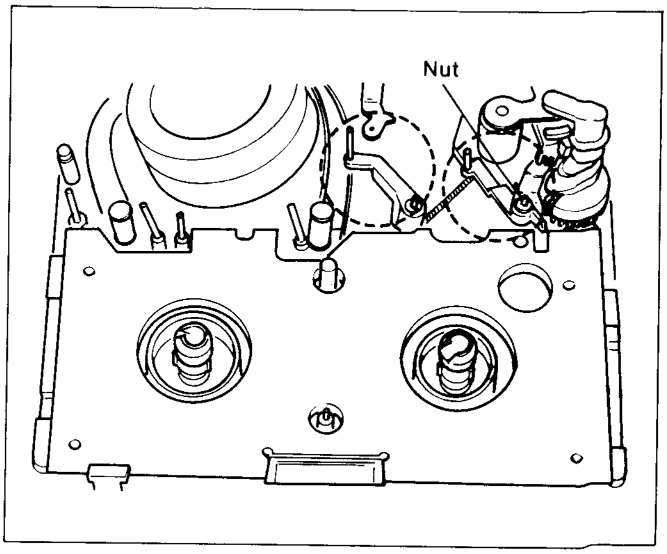


Fig. M16

4. Place the Reel Table Height Gauge on the Post Adjustment Plate and set the gauge to zero "0" as shown in Fig. M17.

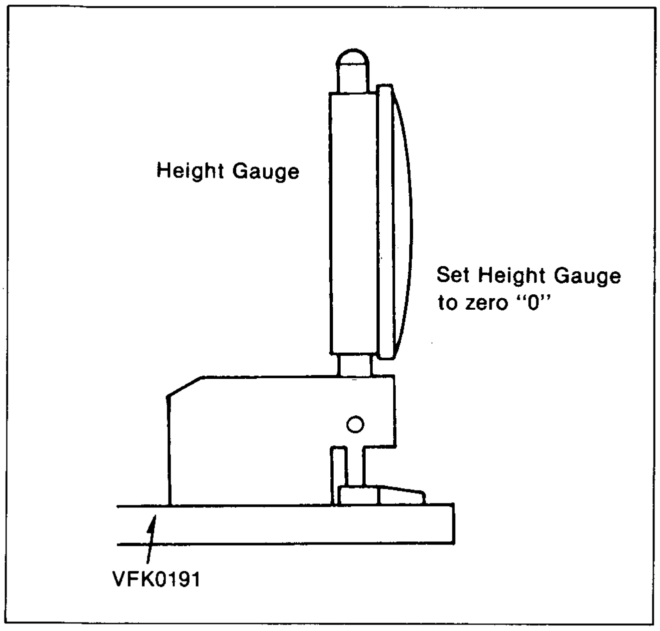

Height Gauge
Set Height Gauge to zero "0"
VFK0191

Fig. M17

5. Place the Reel Table Height Gauge as shown in Fig. M18 and turn the nut slowly until the gauge reads −0.06 +− 0.01mm.

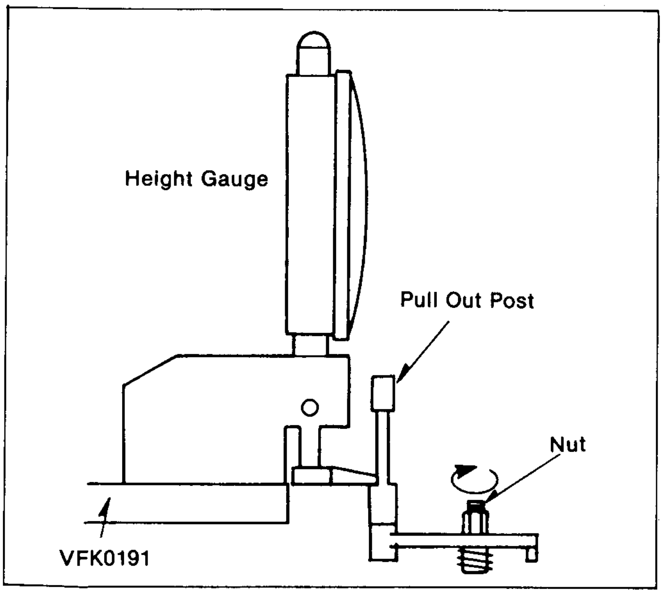

Height Gauge
Pull Out Post
Nut
VFK0191

Fig. M18

6. After the adjustment, install the cassette compartment. (Refer to 2–3–13 Reinstallation of Cassette Compartment).

7. Play back a normal cassette tape and make sure that the edges of the tape are not curling at the bottom or top end of the posts P1, P2, P3, P4 and pull out post as shown in Fig. M19.

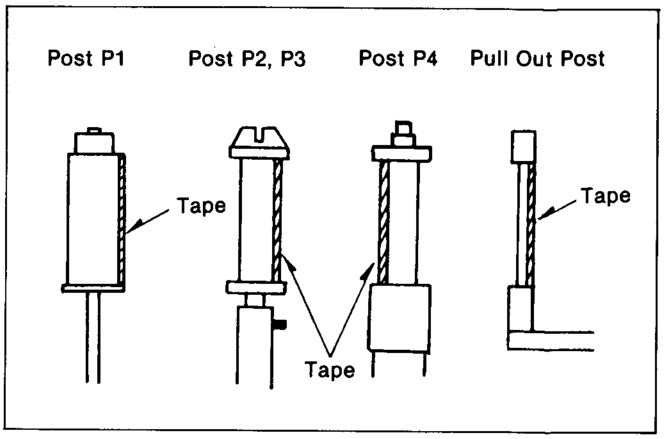

Post P1
Post P2, P3
Post P4
Pull Out Post
Tape
Tape
Tape

Fig. M19

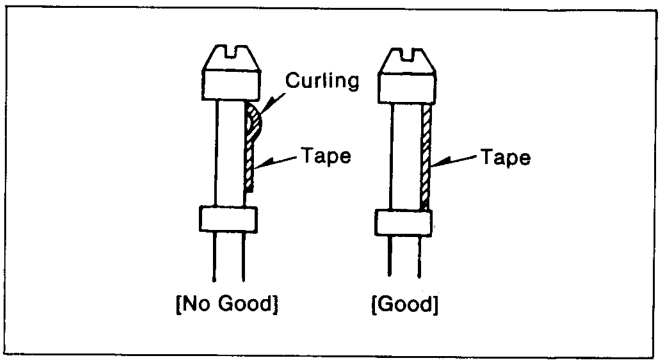

Curling
Tape
Tape
[No Good]
[Good]

Fig. M20

8. If curling appears, readjusts each post(except P1,P4).

2-2-9. TAPE INTERCHANGEABILITY ADJUSTMENT

Note:

Proceed the following procedures for Tape Interchangeability Adjustment to do it Correctly and Smoothly.

A. Confirmation and Adjustment of P2 and P3 Posts.
B. Tilt Adjustment of A/C Head.
C. Height Adjustment of A/C Head.
D. Azimuth Adjustment of A/C Head.
E. Horizontal Position of A/C Head.

If the Tape Interchangeability Adjustment is not perfect, repeat the above procedures from A to E.

A. Confirmation and Adjustment of P2 and P3 Posts

(Equipment Required)
Alignment Tape PAL (VFJ8125H3F)
Post Adjustment Screwdriver
(VFK0329/Tool Kit (PAL) : VFK0283)

1. Set the tracking control into the fix position. (by pressing the tracking (+) and (−) button simultaneously in Digital Tracking OFF position)
And connect the oscilloscope to the output of the Head Amp as shown in Fig. M21.

Note:
To get a stable waveform of the Head Amp output on the oscilloscope, use the head switching pulse as a triggering signal as shown in Fig. M21.

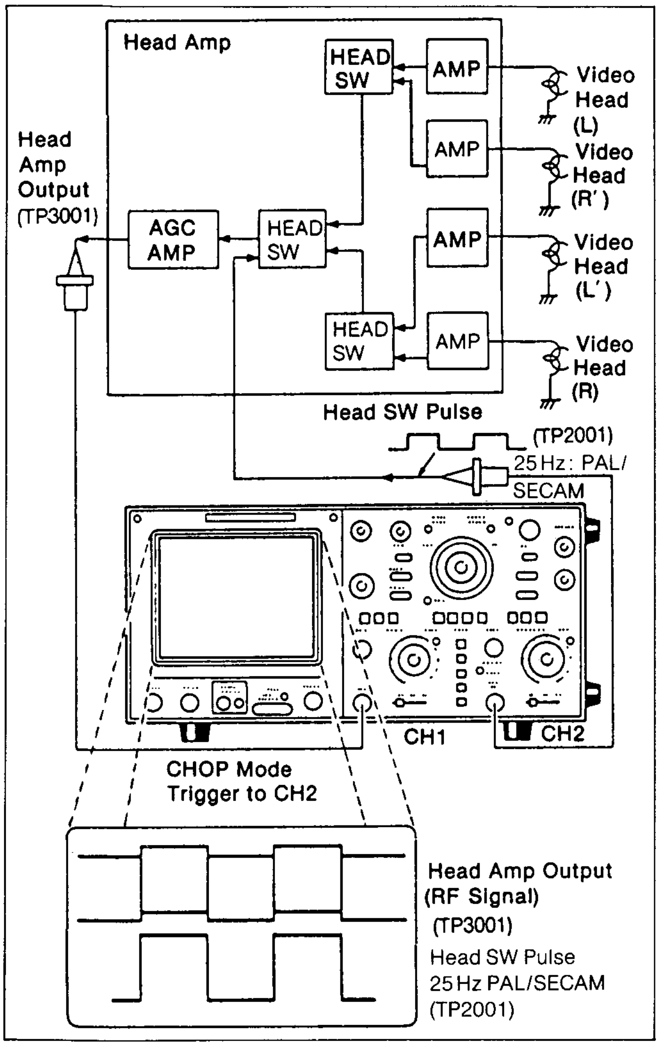

Head Amp
HEAD SW
AMP
Video Head (L)
Video Head (R')
Video Head (L')
Video Head (R)
Head Amp Output (TP3001)
AGC AMP
Head SW Pulse
(TP2001)
25Hz: PAL/SECAM
CH1
CH2
CHOP Mode Trigger to CH2
Head Amp Output (RF Signal) (TP3001)
Head SW Pulse 25Hz PAL/SECAM (TP2001)

Fig. M21 Connection of Oscilloscope

2. Play back the alignment tape (PAL:VFJ8125H3F).
3. If the RF envelope appears like example "A" or "B" in Fig. M22 then adjustment of the tape guide post (P2 : Entrance) is necessary.
4. Adjust the tape guide post (P2) with the post adjustment screwdriver so that the RF envelope waveform at the entrance portion becomes flat as shown in Fig. M22–"C".

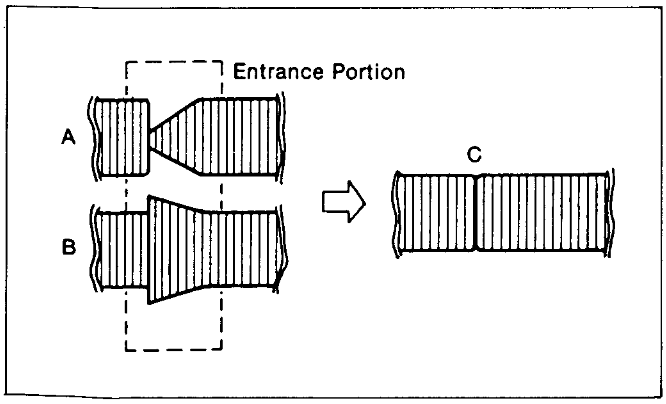

Entrance Portion
A
B
C

Fig. M22

5. If the RF envelope appears like example "D" or "E" in Fig. M23, then adjustment of the tape guide post (P3:Exit) is necessary.
6. Adjust the tape guide post (P3) in the same manner as the P2 post so that the exit portion becomes flat as shown in Fig. M23–"F".

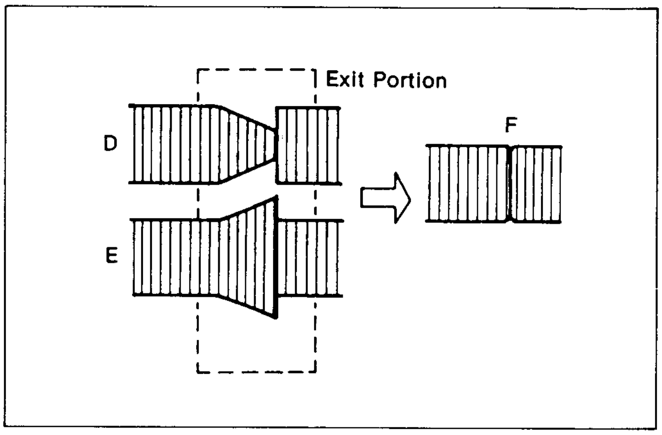

Exit Portion
D
E
F

Fig. M23

7. Turn the Tracking VR fully clockwise and counter clockwise. The output envelop should vary nearly parallel with other condition as shown in Fig. M24.
8. Turn the Tracking VR into centre fix position and adjust for maximum RF envelope.
If the RF envelope does not meet these specifications,
V1/V>=0.7 , V2/V>=0.8 ,
then repeat steps 1–8 again.

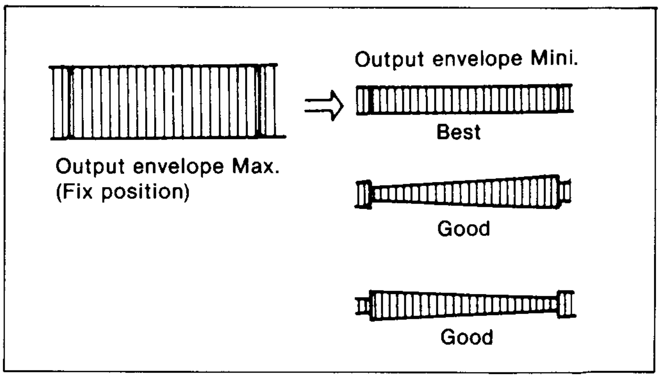

Output envelope Mini.
Best
Output envelope Max.
(Fix position)
Good
Good

Fig. M24

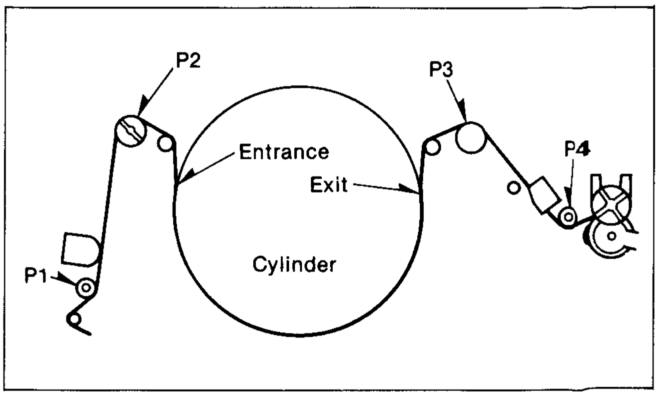

P2
P3
P4
P1
Entrance
Exit
Cylinder

Fig. M25 Loading of Posts

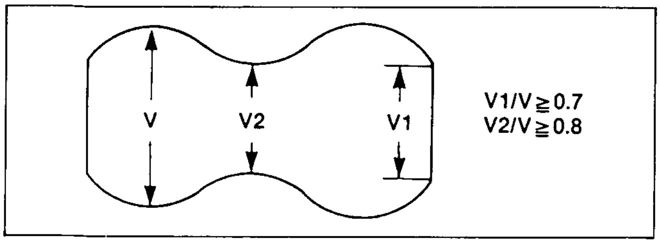

V
V2
V1
V1/V≧0.7
V2/V≧0.8

Fig. M26 Spec. of Envelope Figure

B. TILT ADJUSTMENT OF A/C HEAD

Note:
This procedure should be performed after replacing the A/C HEAD and pressure roller.

Playback the beginning portion of blank cassette tape and confirm that the tape runs between lower and upper limiter of P4 post. If there is waving or frilling in the lower edge or top edge of the tape, correct the tilt of the A/C head by turning the screw (B) located behind the A/C head.

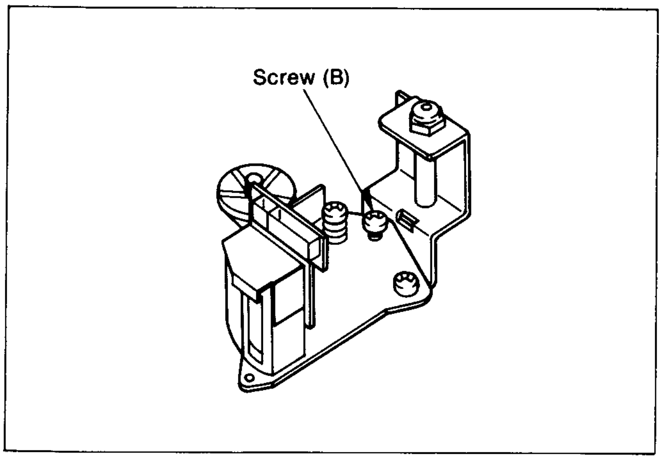


Fig. M27

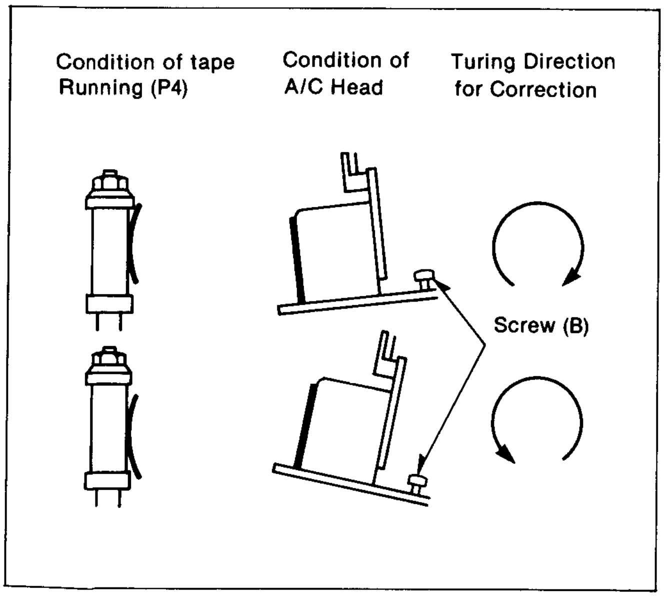

Condition of tape Running (P4)
Condition of A/C Head
Turing Direction for Correction
Screw (B)

Fig. M28

Note:
After Tilt adjustment of A/C head, height adjustment of A/C head is required.

C. HEIGHT ADJUSTMENT OF A/C HEAD

Note:
This procedure should be performed only when the A/C Head is replaced.

Equipment Required:
Check Light (VFK0343)
Nut Driver (Purchase locally)

With the tape running, look at the lower edge of the control head by using the check light and check if the lower edge of tape runs along the lower edge of the control head.
If it doesn't,slightly turn the nut (C) behind the A/C Head (Fig. M29) to either lower or raise the A/C head so that the tape runs along the lower edge of the control head.
Turn the nut (C) clockwise to lower the head, and counter–clockwise to raise it.

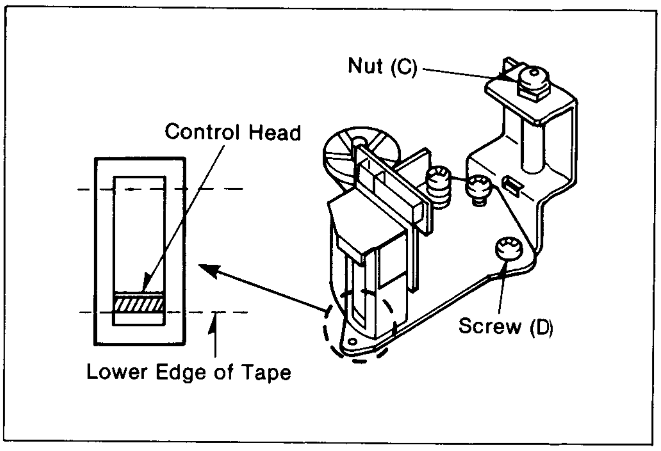

Nut (C)
Control Head
Screw (D)
Lower Edge of Tape

Fig. M29

D. AZIMUTH ADJUSTMENT OF A/C HEAD

Note:
This procedure should be performed only when the A/C Head is replaced and posts height are readjusted.

Equipment Required:
Alignment Tape PAL (VFJ8125H3F)

1. Connect the oscilloscope to the audio output on the rear panel.
2. Play back the 2nd portion (Normal Audio 6KHz) of the alignment tape (PAL:VFJ8125H3F).
3. Adjust the screw (D) so that the output level becomes maximum.

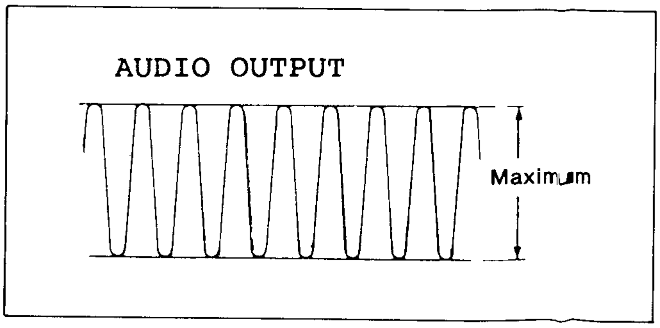

AUDIO OUTPUT
Maximum

Fig. M30

E. HORIZONTAL POSITION ADJUSTMENT OF A/C HEAD HORIZONTAL POSITION

Note:
This procedure should be performed only when the A/C head is replaced, and after performing the tape interchangeability adjustment.

Equipment Required:
H–Position Adjustment Screwdriver
(VFK0328/Tool Kit (PAL):VFK0283)
Alignment Tape PAL (VFJ8125H3F)

1. Set the Tracking Control VR to the centre fix position.(By pressing the tracking (+) and (–) button simultaneously in Digital Tracking OFF position).
2. Connect the oscilloscope to the output of Head Amp. (Refer to Fig. M21)

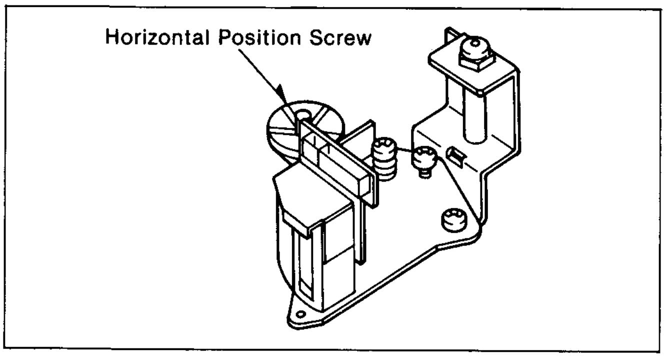

Horizontal Position Screw

Fig. M31

3. Play back the alignment tape (PAL:VFJ8125H3F).
4. Adjust the Horizontal Position Screw of A/C head so that the RF signal becomes maximum level.

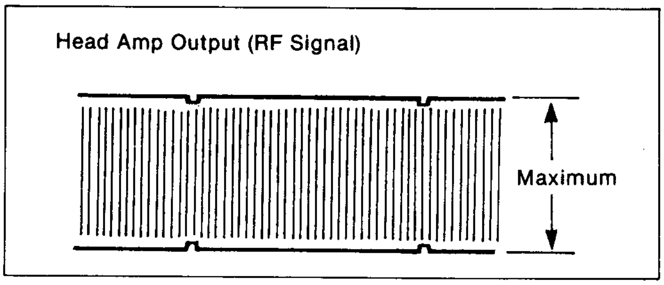

Head Amp Output (RF Signal)
Maximum

Fig. M32

2-3. ASSEMBLY AND ADJUSTMENT PROCEDURES OF MECHANISM

The mechanism of this model is mostly engaged to the System Control Circuit, through the mode select switch.
Therefore the relation between the mode select switch and the cam gear decides all further mechanical movement of the mechanical parts such as levers, gears, rollers and so on.
If these parts are not fixed properly, the unit will be unloaded or compulsorily stopped.
And it will result being damaged at any mechanical or electrical parts.

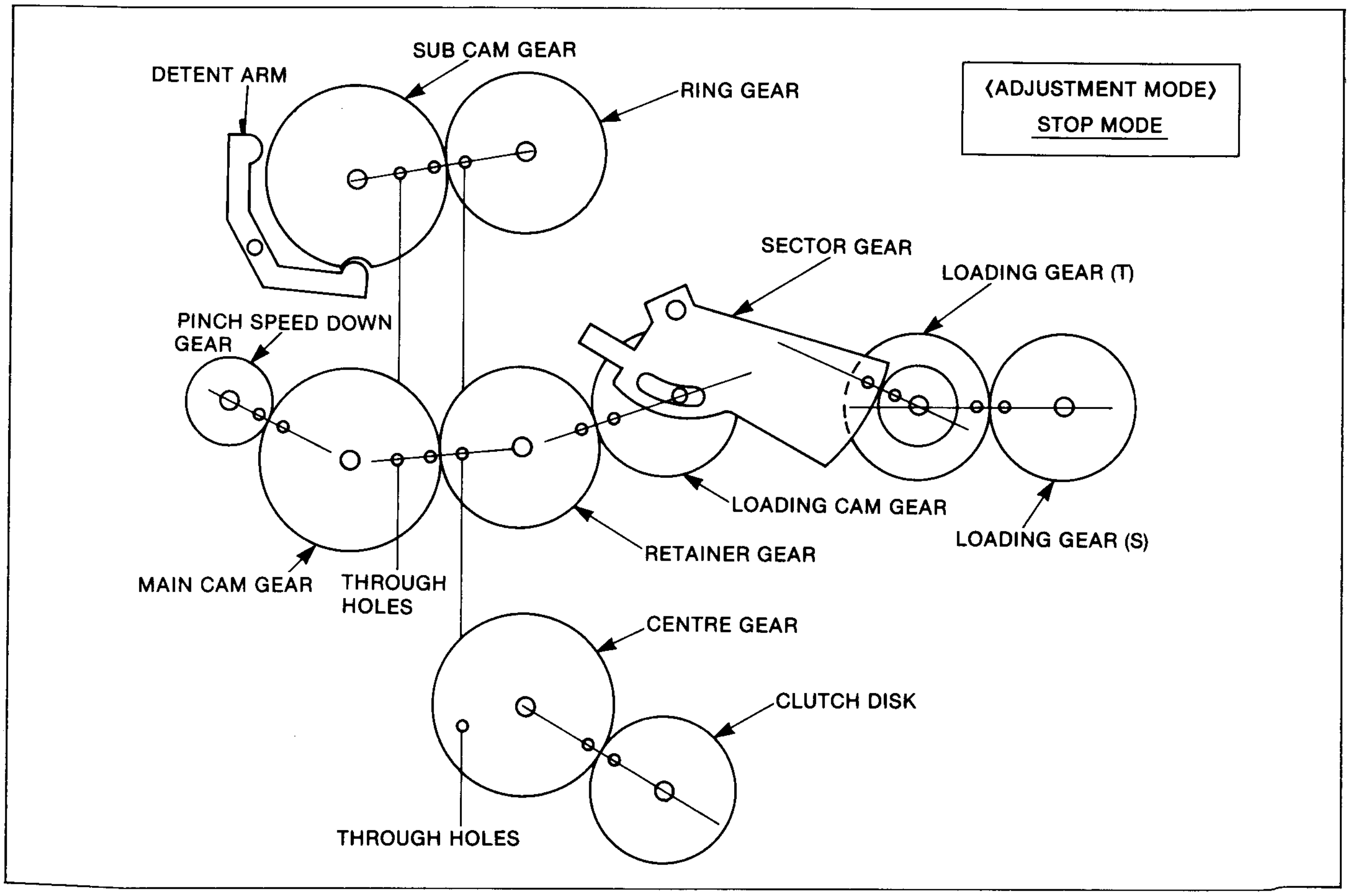

DETENT ARM
SUB CAM GEAR
RING GEAR
〈ADJUSTMENT MODE〉
STOP MODE
SECTOR GEAR
LOADING GEAR (T)
PINCH SPEED DOWN GEAR
LOADING CAM GEAR
RETAINER GEAR
LOADING GEAR (S)
MAIN CAM GEAR
THROUGH HOLES
CENTRE GEAR
CLUTCH DISK
THROUGH HOLES

Fig. A1 Bottom View of Overall Mechanical Condition

The overall mechanical condition (alignment) of bottom and top view are shown in Fig. A1 and Fig. A2. This mechanical adjustment is Performed in STOP mode.
The detail of mechanical condition will be described later.

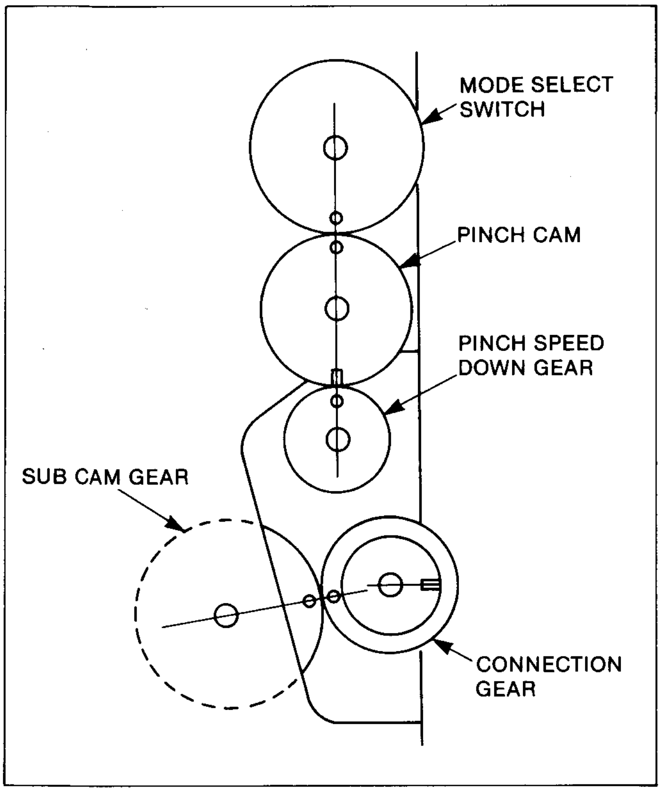

MODE SELECT SWITCH
PINCH CAM
PINCH SPEED DOWN GEAR
SUB CAM GEAR
CONNECTION GEAR

Fig. A2 Top View of Overall Mechanical Condition

2-3-1. ASSEMBLY PROCEDURES OF RING GEAR, SUB CAM GEAR AND DETENT ARM

1. Install the Ring Gear so that the hole of Ring Gear is exactly in line with the hole of chassis as shown Fig. A3.
2. Install the Sub Cam Gear so that the hole of Sub Cam Gear is exactly in line with the hole of chassis, at the same time, the small hole (located just outside of large hole) of Sub Cam Gear is exactly in line with the hole of Ring Gear.
3. Install the Detent Arm.

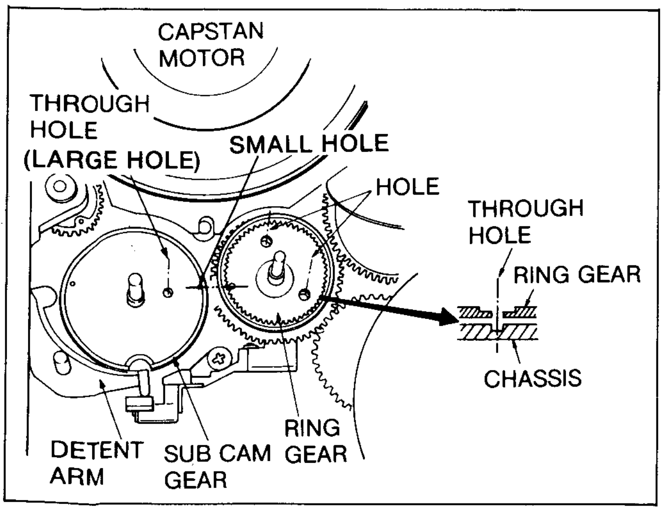

CAPSTAN MOTOR
THROUGH HOLE (LARGE HOLE)
SMALL HOLE
HOLE
THROUGH HOLE
RING GEAR
CHASSIS
DETENT ARM
SUB CAM GEAR
RING GEAR

Fig. A3

2-3-2. ASSEMBLY PROCEDURES OF MAIN CAM GEAR AND PINCH SPEED DOWN GEAR

1. Install the Pinch Speed Down Gear from top side of chassis.
2. Install the Main Cam Gear on to the Sub Cam Gear so that the small hole of Main Cam Gear is exactly in line with the small hole of Pinch Speed Down Gear.
   And the large hole of Main Cam Gear is exactly in line with the large hole of Sub Cam Gear as shown in Fig. A4.

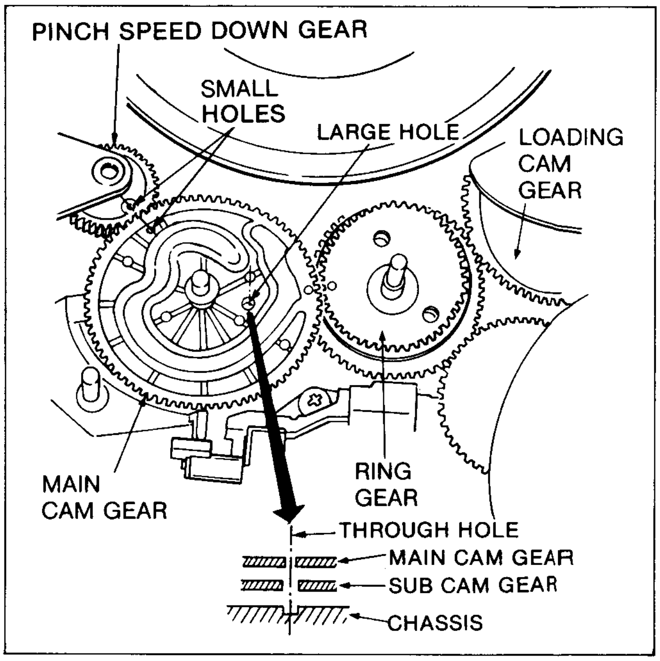

PINCH SPEED DOWN GEAR
SMALL HOLES
LARGE HOLE
LOADING CAM GEAR
MAIN CAM GEAR
RING GEAR
THROUGH HOLE
MAIN CAM GEAR
SUB CAM GEAR
CHASSIS

Fig. A4

2-3-3. ASSEMBLY PROCEDURES OF LOADING CAM GEAR AND RETAINER GEAR

1. Install the Loading Cam Gear so that the end of Sub Loading Arm comes to the rift (A) of Loading Cam Gear as shown in Fig. A5.

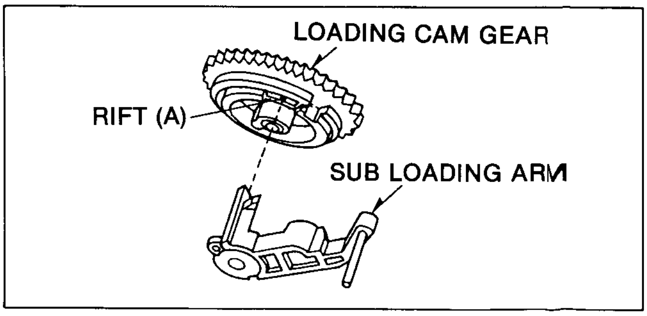

LOADING CAM GEAR
RIFT (A)
SUB LOADING ARM

Fig. A5

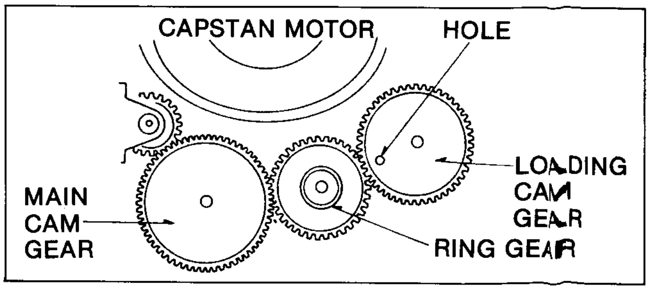

CAPSTAN MOTOR
HOLE
LOADING CAM GEAR
MAIN CAM GEAR
RING GEAR

Fig. A6

2. Install the Retainer Gear on to the Ring Gear so that the hole of Retainer Gear is exactly in line with the hole of Main Cam Gear, at this time, this hole of Retainer Gear also is exactly in line with the hole of Ring Gear. At the same time, another hole of Retainer Gear is exactly in line with the hole of Loading Cam Gear as shown in Fig. A7.

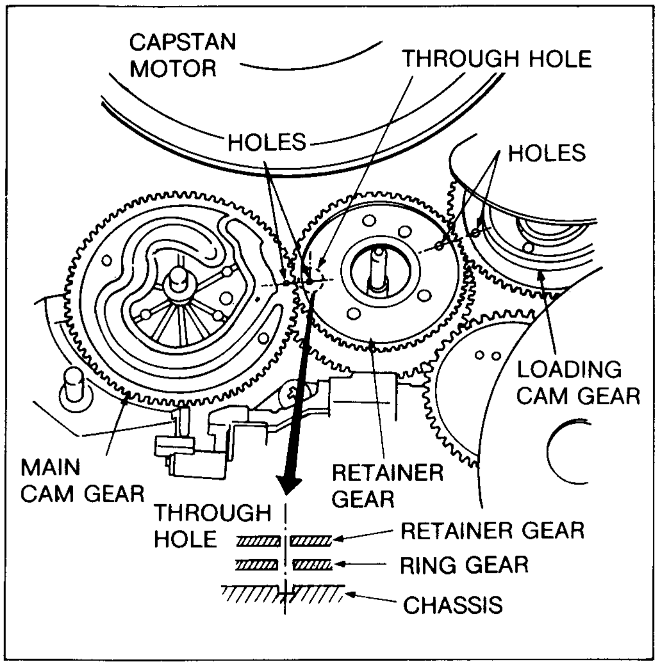

CAPSTAN MOTOR
THROUGH HOLE
HOLES
HOLES
LOADING CAM GEAR
MAIN CAM GEAR
RETAINER GEAR
THROUGH HOLE
RETAINER GEAR
RING GEAR
CHASSIS

Fig. A7

2-3-4. ASSEMBLY PROCEDURES OF CENTER GEAR

1. Install the Centre Gear on to the Retainer Gear so that the hole of Center Gear is exactly in line with the hole of Retainer Gear, at this time, another hole of Center Gear is exactly in line with the small hole of Clutch Disk, then insert the cut washer.

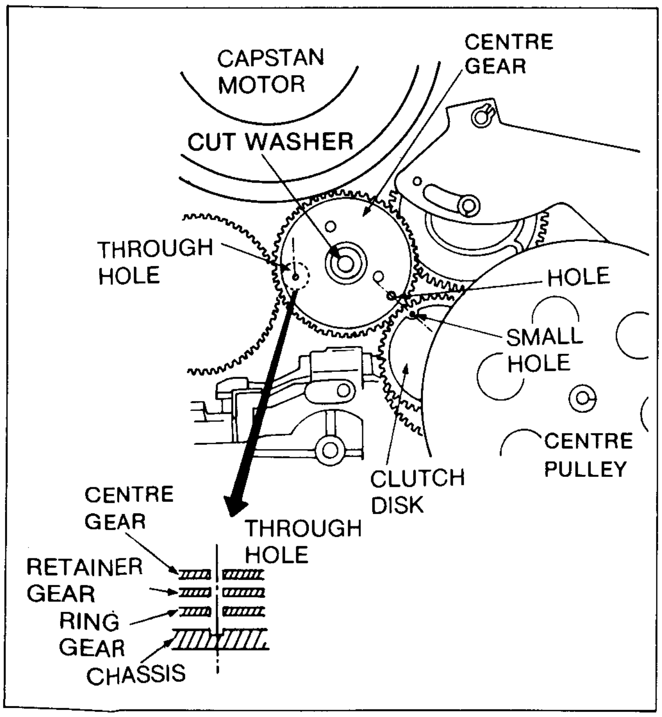

CAPSTAN MOTOR
CENTRE GEAR
CUT WASHER
THROUGH HOLE
HOLE
SMALL HOLE
CENTRE PULLEY
CLUTCH DISK
CENTRE GEAR
THROUGH HOLE
RETAINER GEAR
RING GEAR
CHASSIS

Fig. A8

2-3-5. ASSEMBLY PROCEDURES OF MAIN LEVER (1) UNIT AND CAM FOLLOWER ARM UNIT

1. Install the Main Lever (1) Unit and then insert the cut washers and hitches the spring as shown in Fig. A9.

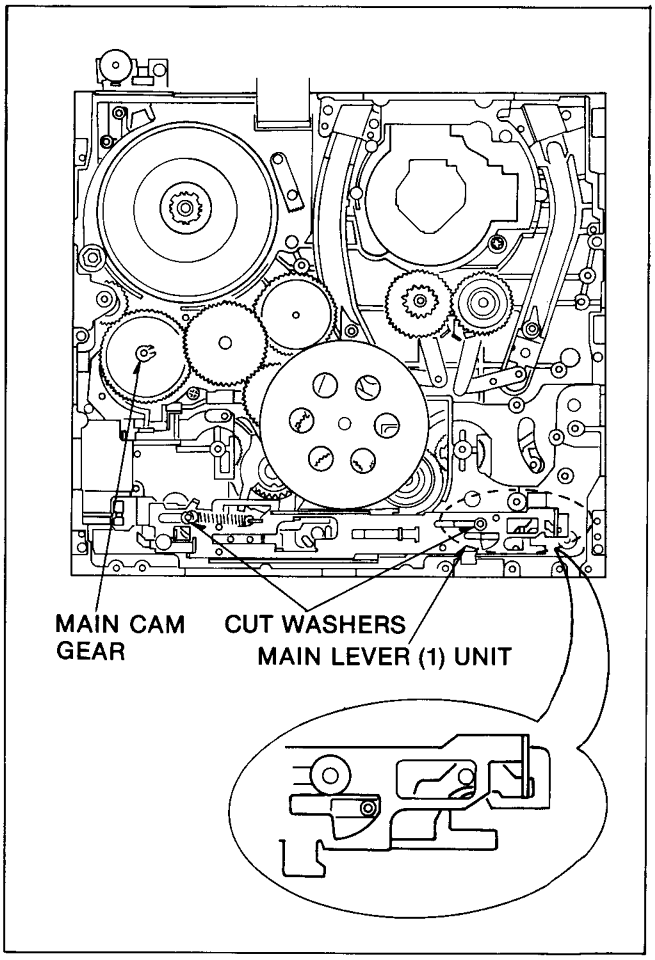

MAIN CAM GEAR
CUT WASHERS
MAIN LEVER (1) UNIT

Fig. A9

2. Install the Cam Follower Arm Unit so that the pin of Cam Follower Arm insert to the groove of Main Cam Gear then insert a retaining ring.

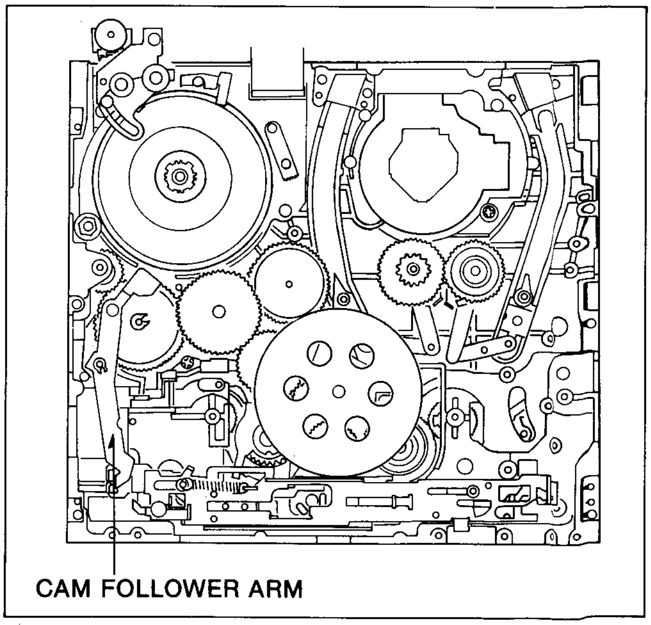

CAM FOLLOWER ARM

Fig. A10

2-3-6. ASSEMBLY PROCEDURES OF LOADING GEAR (T), LOADING GEAR (S), SECTOR GEAR, TENSION ROLLER UNIT AND SS BRAKE ARM UNIT

1. Set the P2 and P3 posts to unloading position, then install the Loading Gear (T) and (S) so that the hole of Loading Gear (T) is exactly in line with the hole of Loading Gear (S).
2. Install the Sector Gear so that the hole of Sector Gear is exactly in line with the projection mark of Loading Gear (T). Then insert the retaining rings.
3. Install the Tension Roller Unit and SS Brake Unit, then tighten the screws.

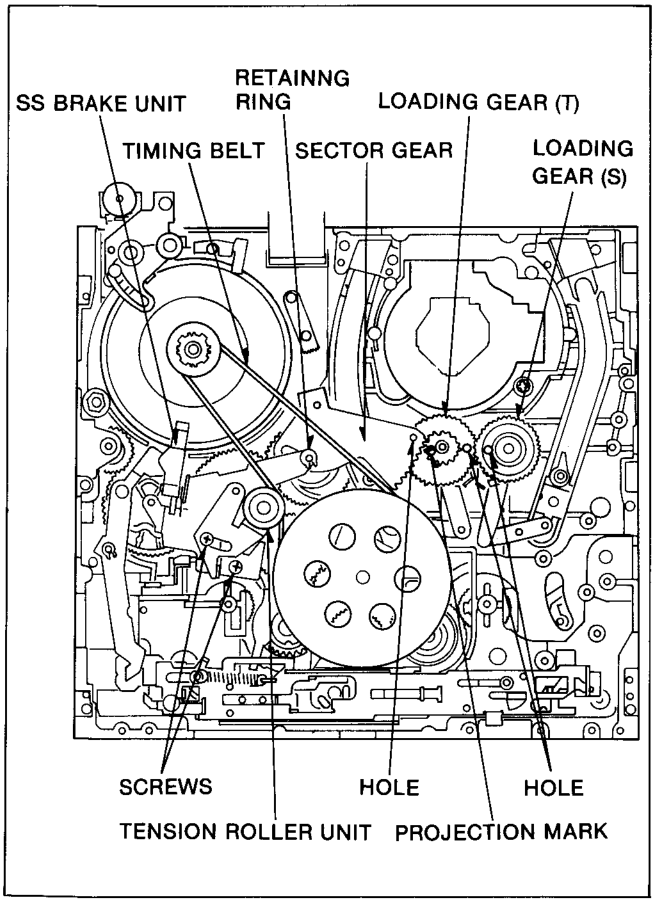

SS BRAKE UNIT
RETAINNG RING
LOADING GEAR (T)
TIMING BELT
SECTOR GEAR
LOADING GEAR (S)
SCREWS
HOLE
HOLE
TENSION ROLLER UNIT
PROJECTION MARK

Fig. A11

2-3-7. ASSEMBLY PROCEDURES OF REV ARM UNIT, REV CLUTCH UNIT, TENSION RELEASE LEVER AND TENSION RELEASE CLUTCH UNIT

1. Install the Rev arm unit and Rev clutch unit.
2. Hitch the Rev motor timing belt to Rev clutch unit.
3. Install the Tension Release Lever unit and Tension Release clutch unit.

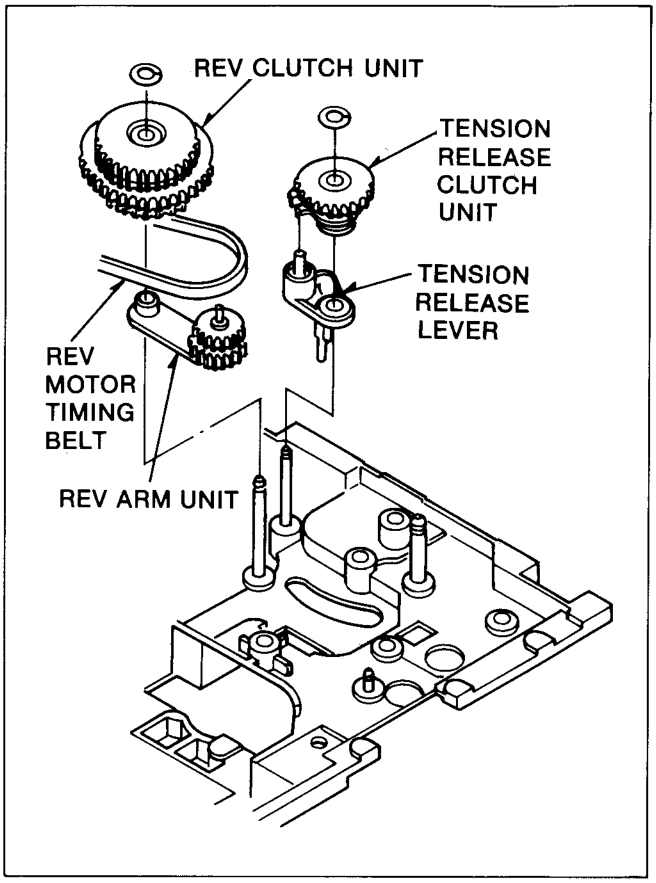

REV CLUTCH UNIT
TENSION RELEASE CLUTCH UNIT
TENSION RELEASE LEVER
REV MOTOR TIMING BELT
REV ARM UNIT

Fig. A12

2-3-8. ASSEMBLY PROCEDURES OF SUB LEVER CAM, SUB CAM FOLLOWER AND REV CONTROL LEVER

1. Install the SUB LEVER CAM RUBBER STOPPER, SUB CAM FOLLOWER and washer as shown below.

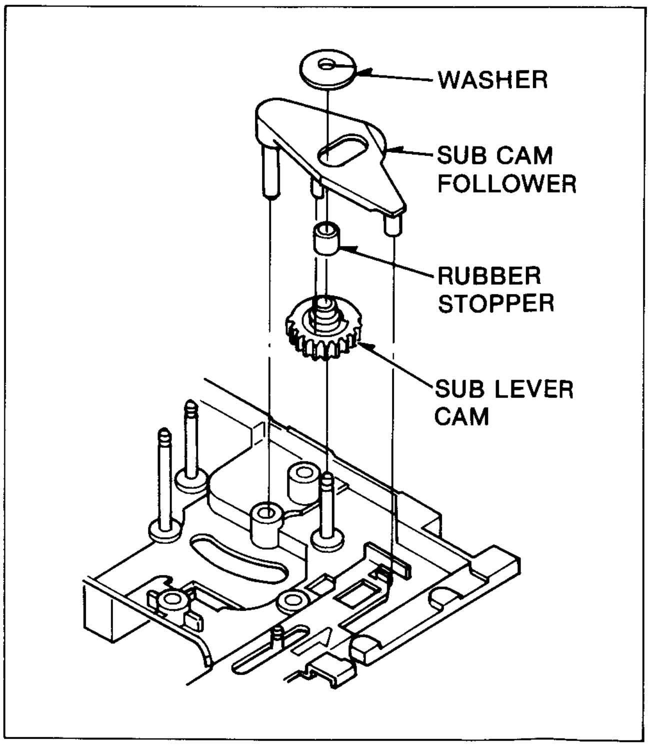

WASHER
SUB CAM FOLLOWER
RUBBER STOPPER
SUB LEVER CAM

Fig. A13

2. Install the Review Control Lever as shown below.

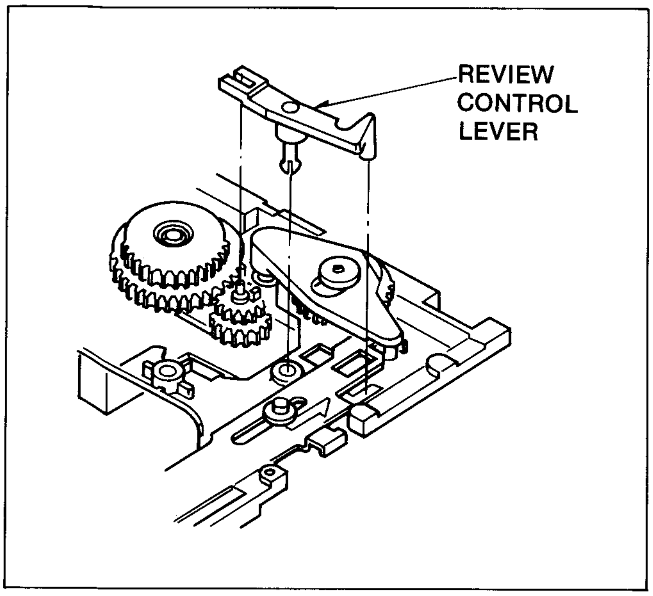

REVIEW
CONTROL
LEVER

Fig. A14

2-3-9. ASSEMBLY PROCEDURES OF TENSION PULLEY BASE (A) UNIT

1. Install the Tension Pulley Base (A) unit as shown below.
2. Hitch the Rev Motor Timing belt. (Refer to 2-3-2. Tension Adjustment For Rev Motor Timing Belt)

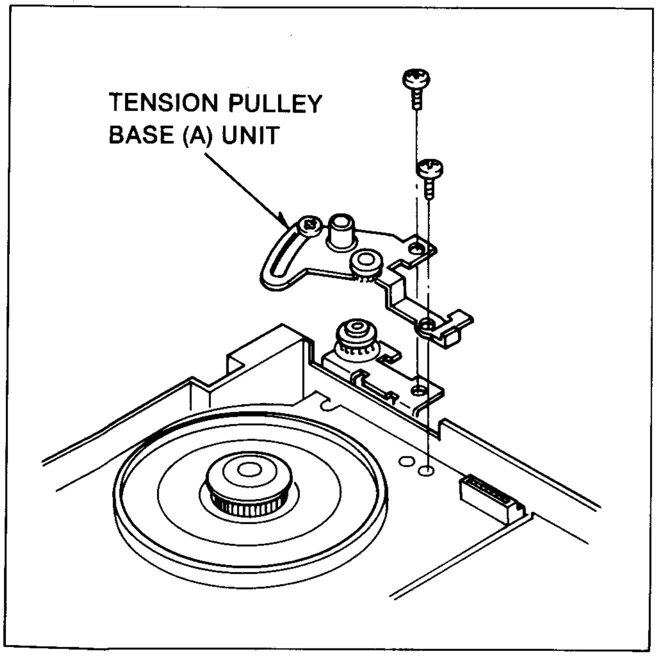

TENSION PULLEY
BASE (A) UNIT

Fig. A15

2-3-10. ASSEMBLY PROCEDURES OF CONNECTION GEAR

Note:
Before this assembling, Sub Cam Gear position (and positions of bottom side gears) must be in correct positions as described before.
Install the connection gear so that the small hole of connection gear is exactly in line with the small hole of Sub Cam Gear as shown in Fig. A16.

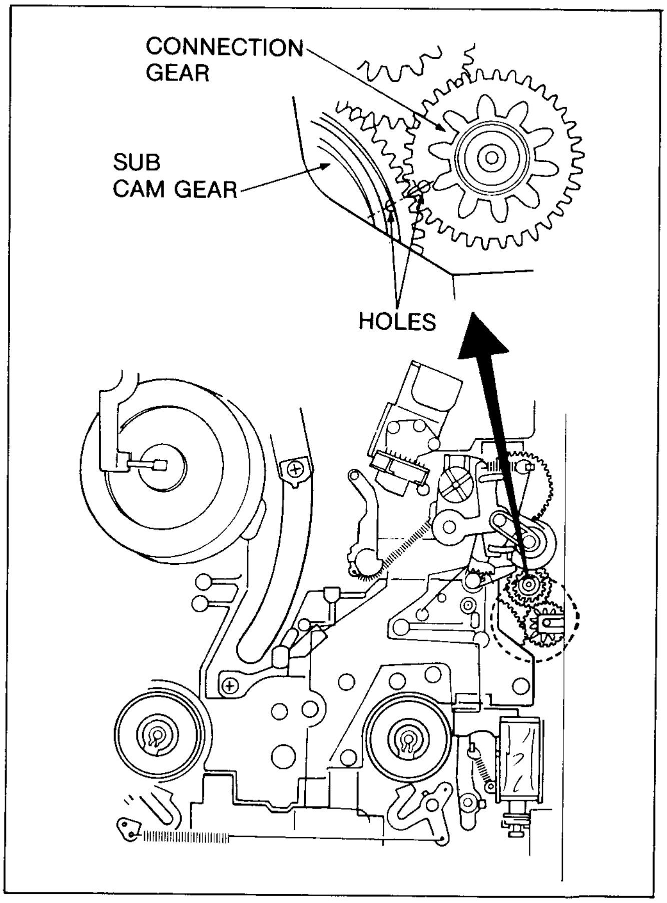

CONNECTION
GEAR
SUB
CAM GEAR
HOLES

Fig. A16

2-3-11. ASSEMBLY PROCEDURES OF MODE SELECT SWITCH AND P5 PULL OUT SECTOR GEAR

1. Install the Mode Select Switch and tighten a screw, then solder the 5 soldering portions.
2. Install the P5 Pull Out Sector Gear so that the hole of P5 Pull Out Sector Gear is exactly in line with the tip of edge at P5 gear as shown in Fig. A17.

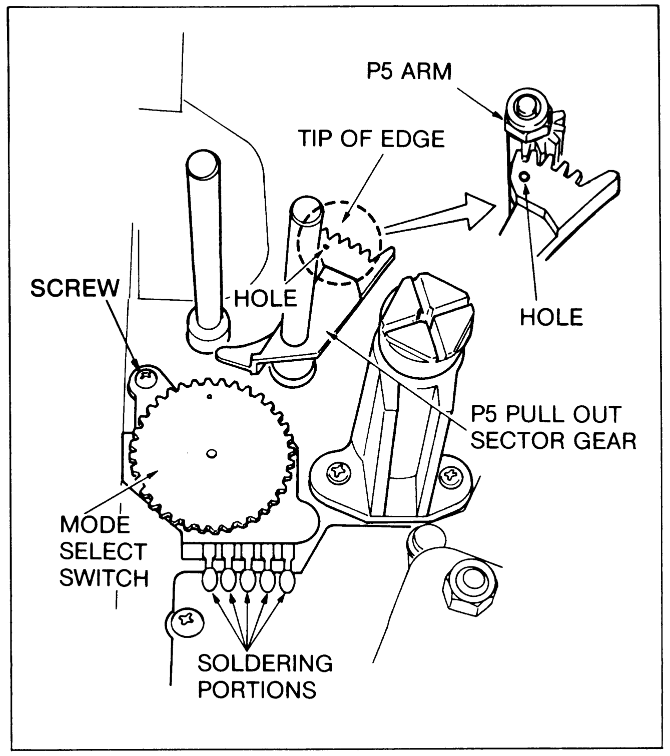

P5 ARM
TIP OF EDGE
SCREW
HOLE
HOLE
P5 PULL OUT SECTOR GEAR
MODE SELECT SWITCH
SOLDERING PORTIONS

Fig. A17

2-3-12. ASSEMBLY PROCEDURES OF PINCH CAM AND PRESSURE ROLLER UNIT

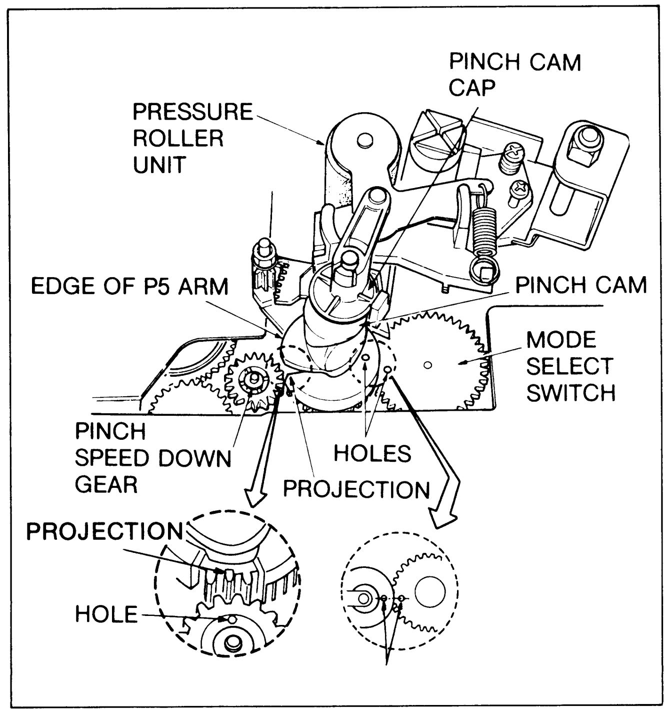

PINCH CAM CAP
PRESSURE ROLLER UNIT
EDGE OF P5 ARM
PINCH CAM
MODE SELECT SWITCH
PINCH SPEED DOWN GEAR
HOLES
PROJECTION
PROJECTION
HOLE

Fig. A18

1. Install the Pinch Cam so that the edge of P5 Arm comes into the Rift of Pinch Cam and Projection of Pinch Cam is exactly in line with the hole of Pinch Speed Down Gear, at this time, the hole of Mode Select Switch is exactly in line with the hole of Pinch Cam as shown in Fig. A18.
2. Install the Pressure Roller Unit, then install the Pinch Cam Cap.

2-3-13. REINSTALLATION OF CASSETTE COMPARTMENT

When reinstall the cassette compartment, the position adjustment (alignment) of mechanism is necessary for correct working as follows.

A. Reinstallation of Cassette Compartment from Stop (FF/REW) Position

1. Set the mechanism condition to Stop (FF/REW) position by means of turning capstan motor (refer to item Technical Information in this manual).
2. Remove the 2 screws (A) as shown in Fig. A19.
3. Take the top plate out.

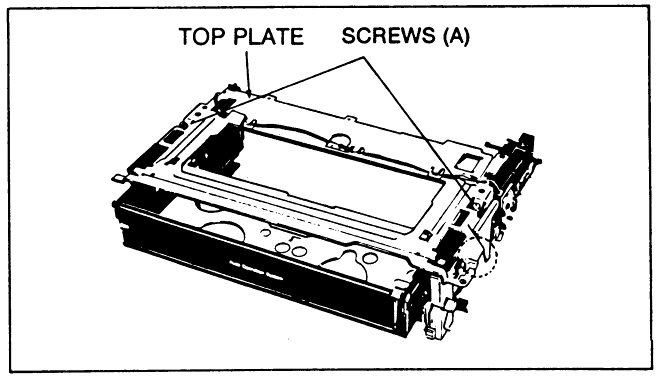

TOP PLATE
SCREWS (A)

Fig. A19

4. Take the cassette Holder unit out as shown in Fig. A20.

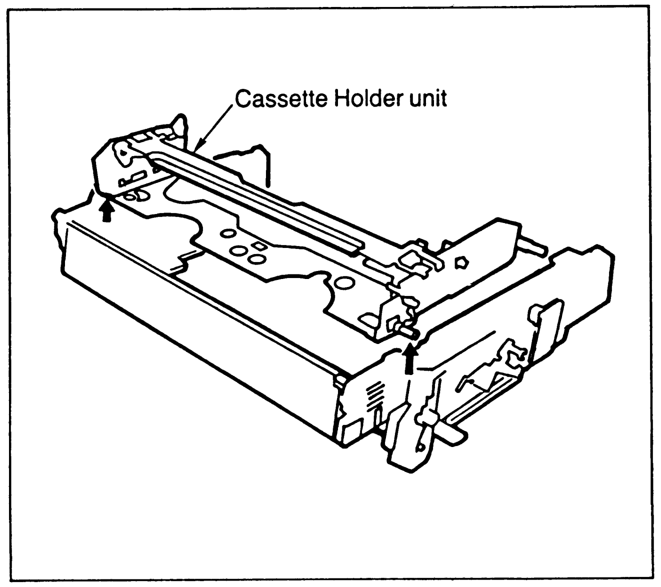

Cassette Holder unit

Fig. A20 Removal of cassette holder unit.

5. Press the sub wiper arm (R) to direction indicated by arrow so that the sub wiper arm (R) comes to cassette down position completely as shown in Fig. A21. and keep it.

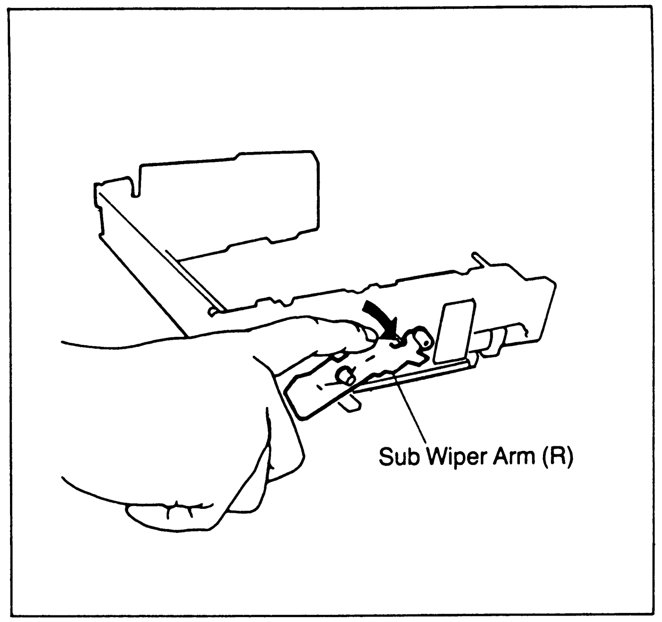

Sub Wiper Arm (R)

Fig. A21

6. Reinstall the cassette compartment (Without Cassette Holder) to chassis so that the first tip of Rack Gear A (1) comes to Marking slot of connection gear as shown in Fig. A22.

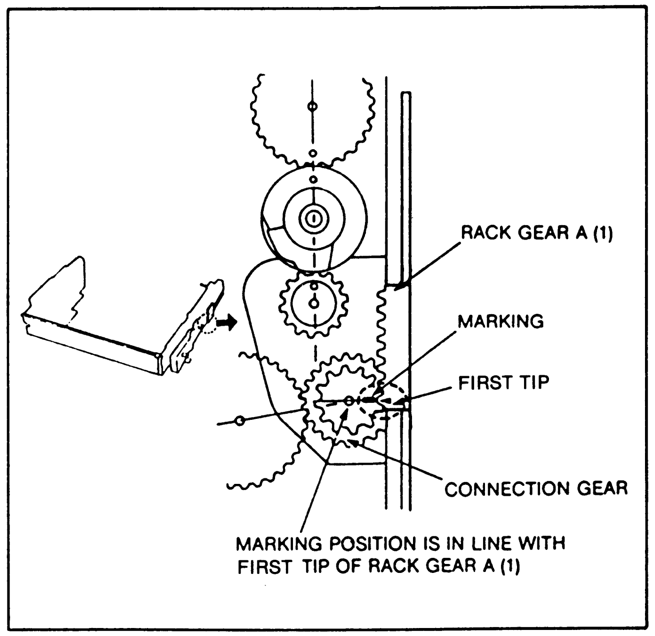

RACK GEAR A (1)
MARKING
FIRST TIP
CONNECTION GEAR
MARKING POSITION IS IN LINE WITH FIRST TIP OF RACK GEAR A (1)

Fig. A22

7. Tighten the 4 screws (D) as shown in Fig. A23.

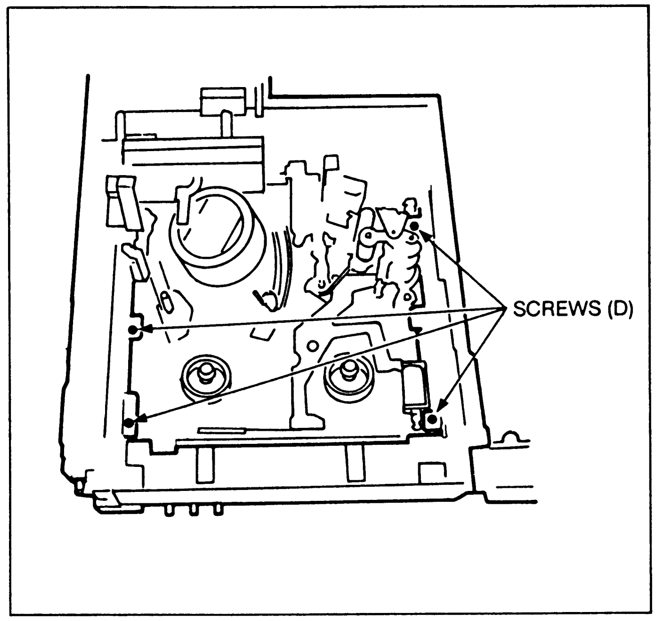


Fig. A23

8. Repeat Pressing the change lever and turn the capstan motor counter clockwise until mechanism is placed to Eject position.
9. Reinstall the cassette holder unit as just the reverse way of item 4, Fig. A20.
10. Reinstall the top plate as just the reverse way of item 3, Fig. A19.

VFJ8125
(Refer to T
VRD-TC-4

VFK013

VFK0343

VFK0329

VFK0341

he edge of P5 inch Cam and xactly in line own Gear, at lect Switch is Pinch Cam as

, then install

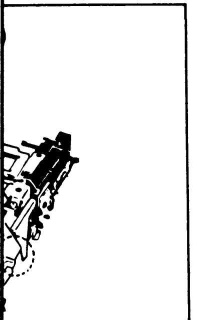
TTE

partment, the mechanism is s.

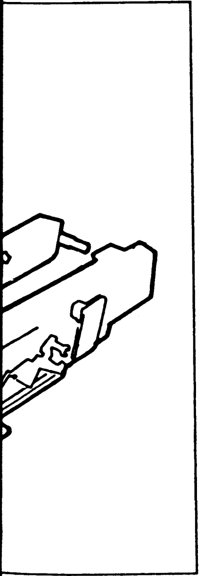
partment from

top (FF/REW) capstan motor ation in this

in Fig. A19.



t as shown in



holder unit.

5. Press the sub wiper arm (R) to direction indicated by arrow so that the sub wiper arm (R) comes to cassette down position completely as shown in Fig. A21. and keep it.

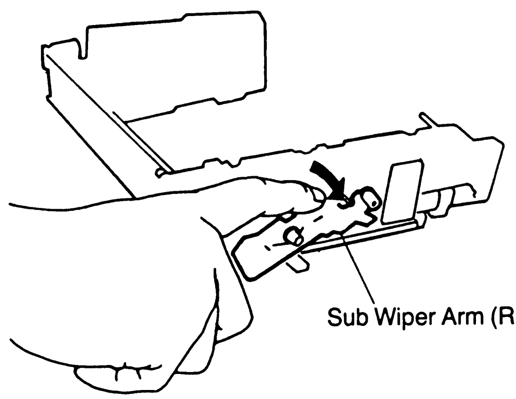


Fig. A21

6. Reinstall the cassette compartment (Without Cassette Holder) to chassis so that the first tip of Rack Gear A (1) comes to Marking slot of connection gear as shown in Fig. A22.

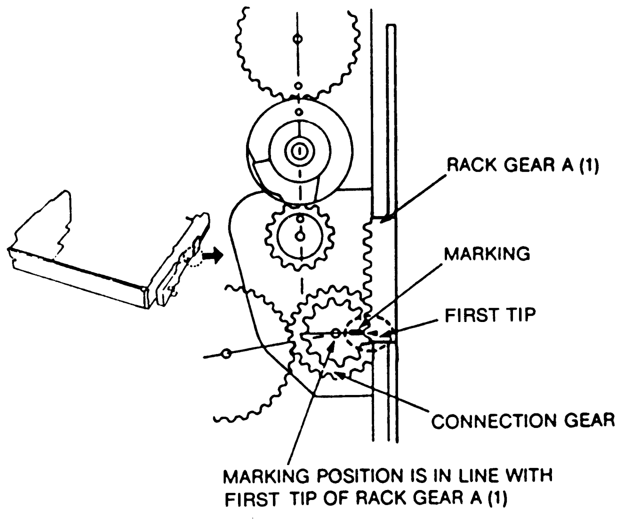

RACK GEAR A (1)
MARKING
FIRST TIP
CONNECTION GEAR
MARKING POSITION IS IN LINE WITH
FIRST TIP OF RACK GEAR A (1)

Fig. A22

7. Tighten the 4 screws (D) as shown in Fig. A23.

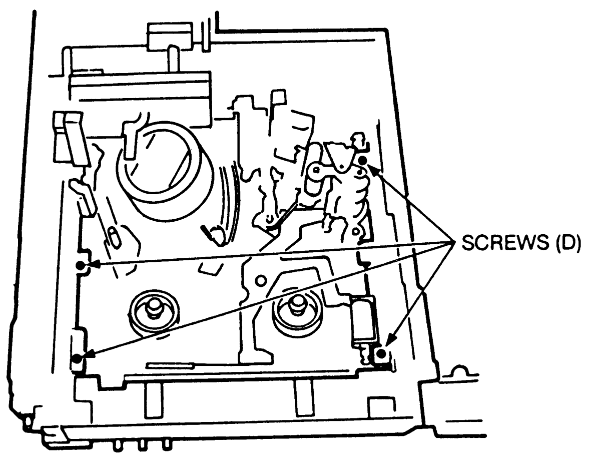
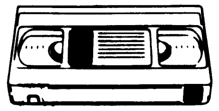
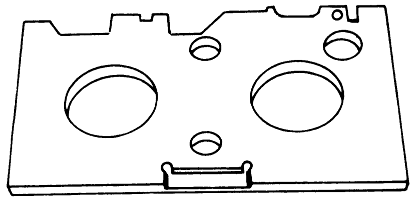
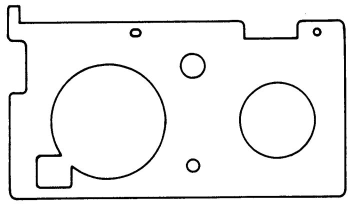
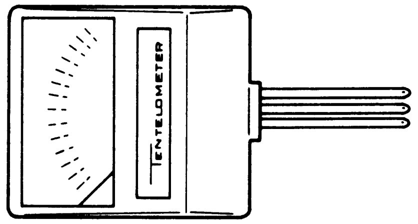
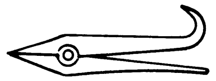
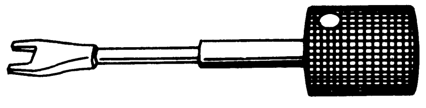
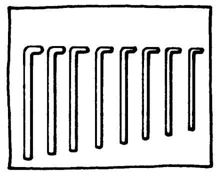
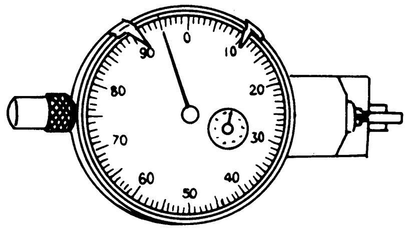
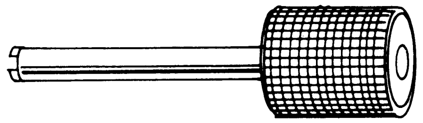
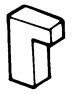
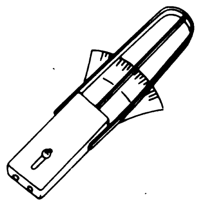
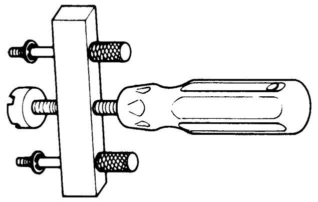
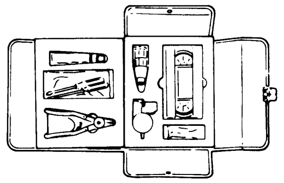
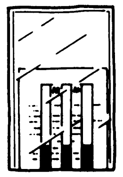


Fig. A23

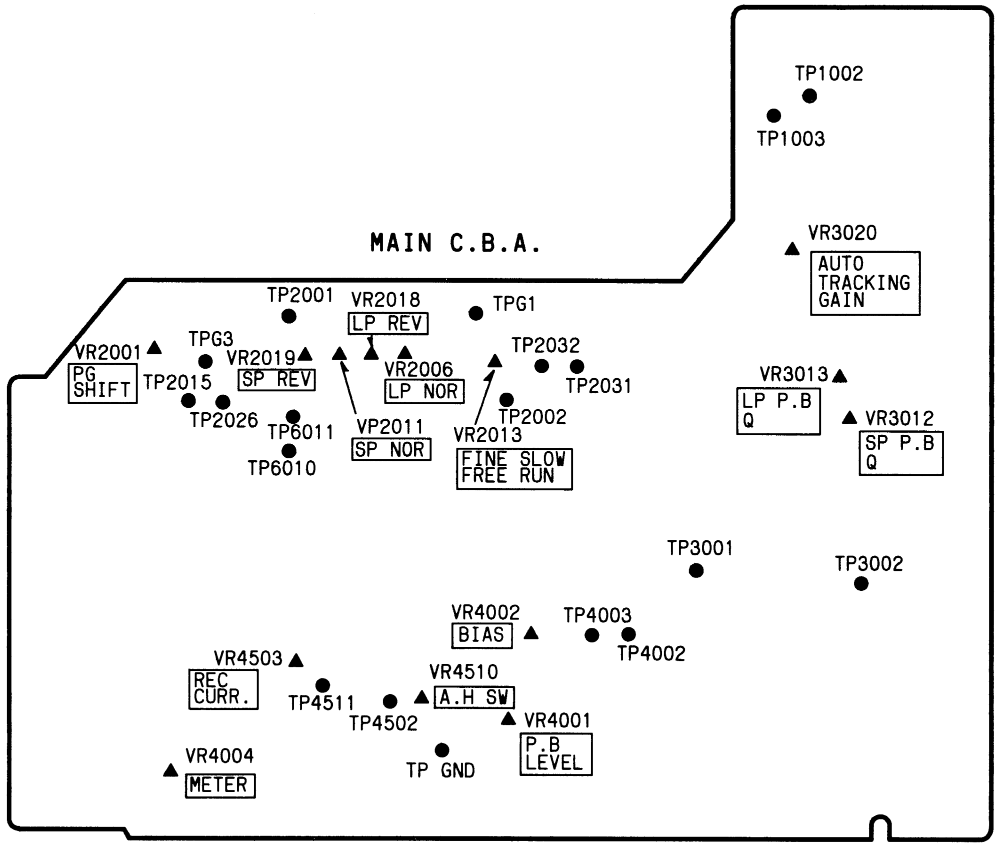
8. Repeat Pressing the change lever and turn the capstan motor counter clockwise until mechanism is placed to Eject position.
9. Reinstall the cassette holder unit as just the reverse way of item 4, Fig. A20.
10. Reinstall the top plate as just the reverse way of item 3, Fig. A19.

Servicing Fixtures & Tools

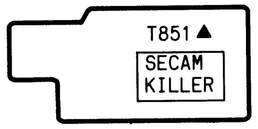
VFJ8125H3F PAL VHS Alignment Tape (Refer to Technical Information Order No. VRD-TC-401-1) 	**VFK0191 Post Adjustment Plate** 	**VFK0387 Tension Post Adj. Fixture** 
VFK0132 Back Tension Meter (Tentelometer, Made in U.S.A.) 	**VFK0335 Retaining Ring Remover** (3mm/4mm) 	**VFK0328 H-Position Adj. Screwdriver** 
VFK0343 Check Light	**VFK0326 Hex. Wrench Set** (0.7, 0.9, 1.2, 1.5, 1.6, 2, 2.4, 3mm) 	**VFK0190 Reel Table Height Jig** 
VFK0329 Post Adjustment Screwdriver 	**VFK0344 Height Adjustment Jig** 	**VFK62 Fan Type Tension Gauge** 
VFK0341 Upper Cylinder Remover Jig 	**VFK0283 Tool Kit**  Refer to Technical Information Order No. VRD-TC-402-3	**VFK27 Head Cleaning Stick**  **MOR265 Morlytone Grease**

LOCATION OF TEST POINTS & CONTROLS

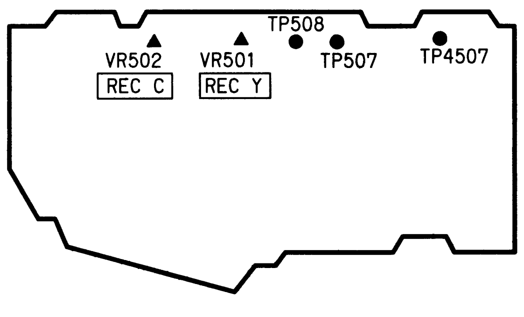
MAIN C.B.A.


TP1002
TP1003
VR3020
AUTO TRACKING GAIN
TP2001
VR2018
LP REV
TPG1
VR2001
PG SHIFT
TPG3
VR2019
SP REV
VR2006
LP NOR
TP2032
TP2031
TP2015
TP2026
TP6011
TP6010
VP2011
SP NOR
TP2002
VR2013
FINE SLOW FREE RUN
VR3013
LP P.B Q
VR3012
SP P.B Q
TP3001
TP3002
VR4002
BIAS
TP4003
TP4002
VR4503
REC CURR.
TP4511
VR4510
A.H SW
TP4502
VR4001
P.B LEVEL
VR4004
METER
TP GND

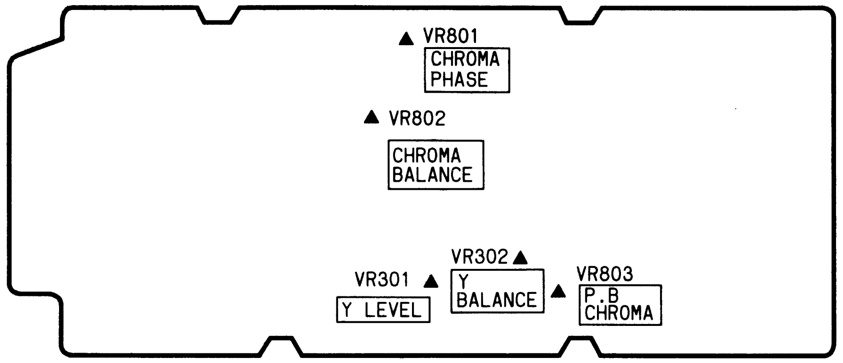
DDR SECAM PACK C.B.A.


T851
SECAM KILLER

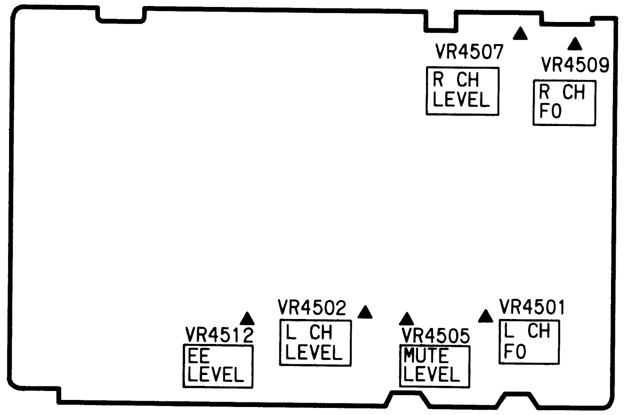
HEAD AMP C.B.A.


TP508
VR502
REC C
VR501
REC Y
TP507
TP4507

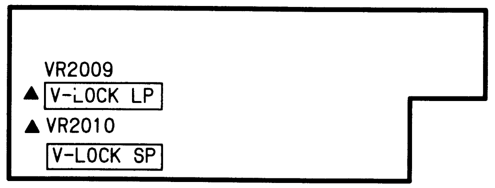
LUMINANCE & CHROMINANCE PACK C.B.A.


VR801
CHROMA PHASE
VR802
CHROMA BALANCE
VR302
Y BALANCE
VR301
Y LEVEL
VR803
P.B CHROMA

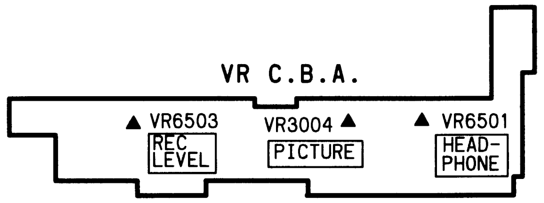
Hi-Fi AUDIO PACK C.B.A.


VR4507
R CH LEVEL
VR4509
R CH FO
VR4512
EE LEVEL
VR4502
L CH LEVEL
VR4505
MUTE LEVEL
VR4501
L CH FO

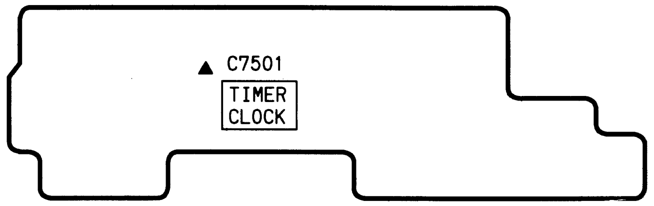
INPUT/OUTPUT PACK C.B.A.


VR2009
V-LOCK LP
VR2010
V-LOCK SP

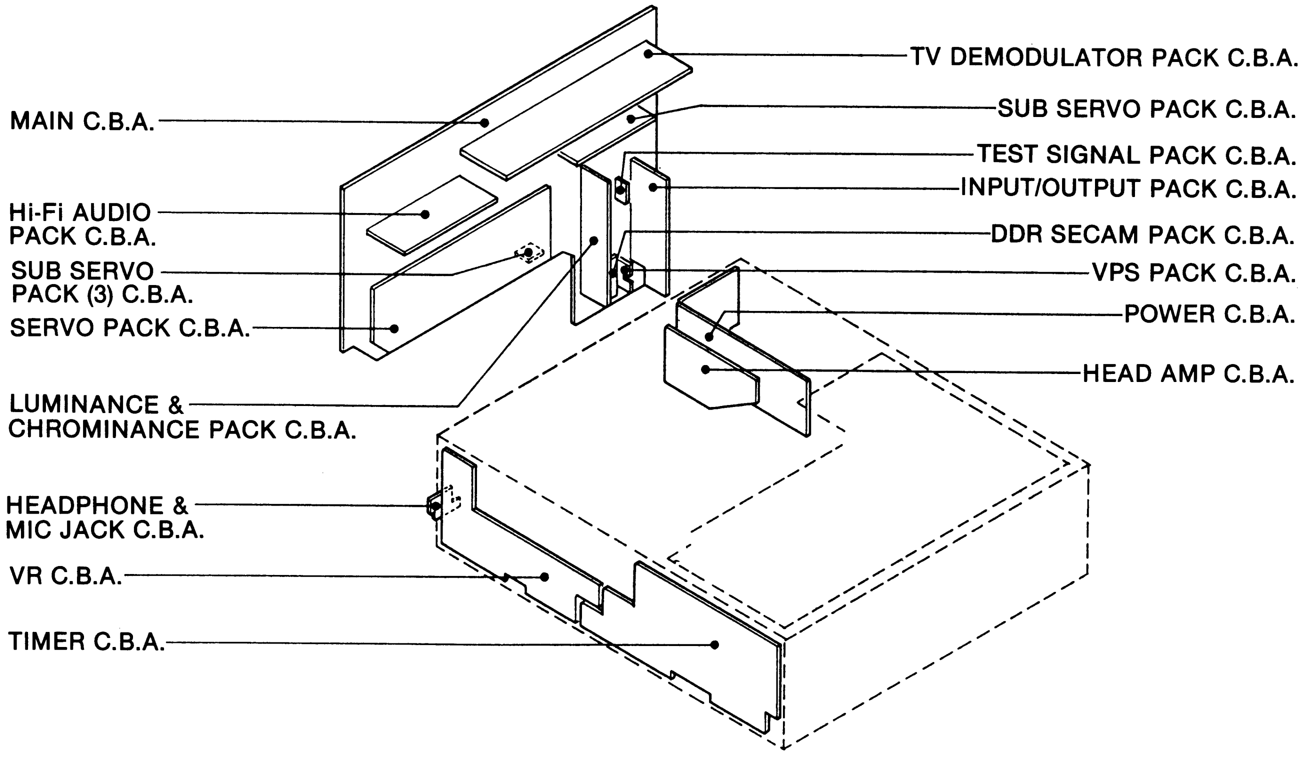
VR C.B.A.


VR6503
REC LEVEL
VR3004
PICTURE
VR6501
HEAD-PHONE

TIMER C.B.A.


C7501
TIMER CLOCK

CIRCUIT BOARD LAYOUT


TV DEMODULATOR PACK C.B.A.
SUB SERVO PACK C.B.A.
TEST SIGNAL PACK C.B.A.
INPUT/OUTPUT PACK C.B.A.
DDR SECAM PACK C.B.A.
VPS PACK C.B.A.
POWER C.B.A.
HEAD AMP C.B.A.
MAIN C.B.A.
Hi-Fi AUDIO PACK C.B.A.
SUB SERVO PACK (3) C.B.A.
SERVO PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
HEADPHONE & MIC JACK C.B.A.
VR C.B.A.
TIMER C.B.A.

2-4. ELECT PROCE

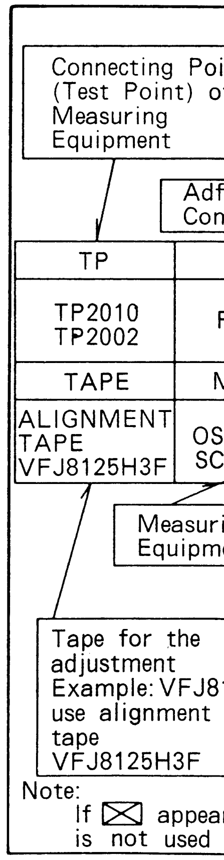
This section adjustment proce electronic circu Recorders.

2-4-1. TEST EQUI

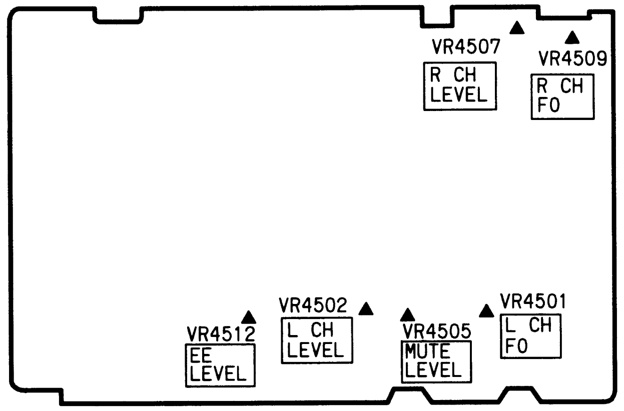
To perform the following equipme

1. VTVM (Vacu (Digital Volt Voltage Rang
2. Dual–Trace C Voltage range Frequency Ra Probes:
3. Frequency cou Frequency Ra
4. Signal Genera Frequency Ra
5. Video Sweep Frequency Ra
6. Colour Monit
7. Plaastic Tip
8. VHS Alignme
9. Pattern Gener

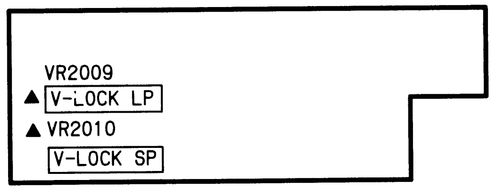
2-4-2. HOW TO R PROCEDUR


Connecting Poi (Test Point) o Measuring Equipment
Adf Con
TP
TP2010 TP2002
F
TAPE
N
ALIGNMENT TAPE VFJ8125H3F
OS SC
Measuri Equipm
Tape for the adjustment Example: VFJ8 use alignment tape VFJ8125H3F
Note:
If ⊠ appea is not used

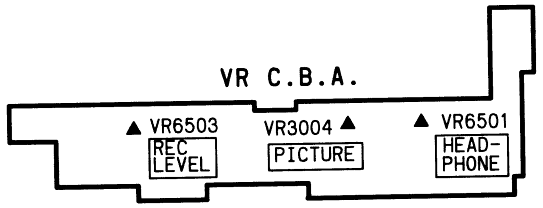
Hi-Fi AUDIO PACK C.B.A.


▲ VR4507
R CH LEVEL
▲ VR4509
R CH FO
▲ VR4512
EE LEVEL
VR4502 ▲
L CH LEVEL
▲ VR4505
MUTE LEVEL
▲ VR4501
L CH FO

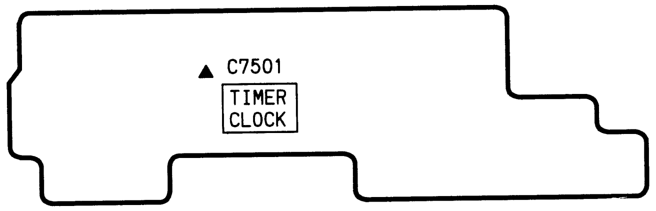
INPUT/OUTPUT PACK C.B.A.


VR2009
▲ V-LOCK LP
▲ VR2010
V-LOCK SP

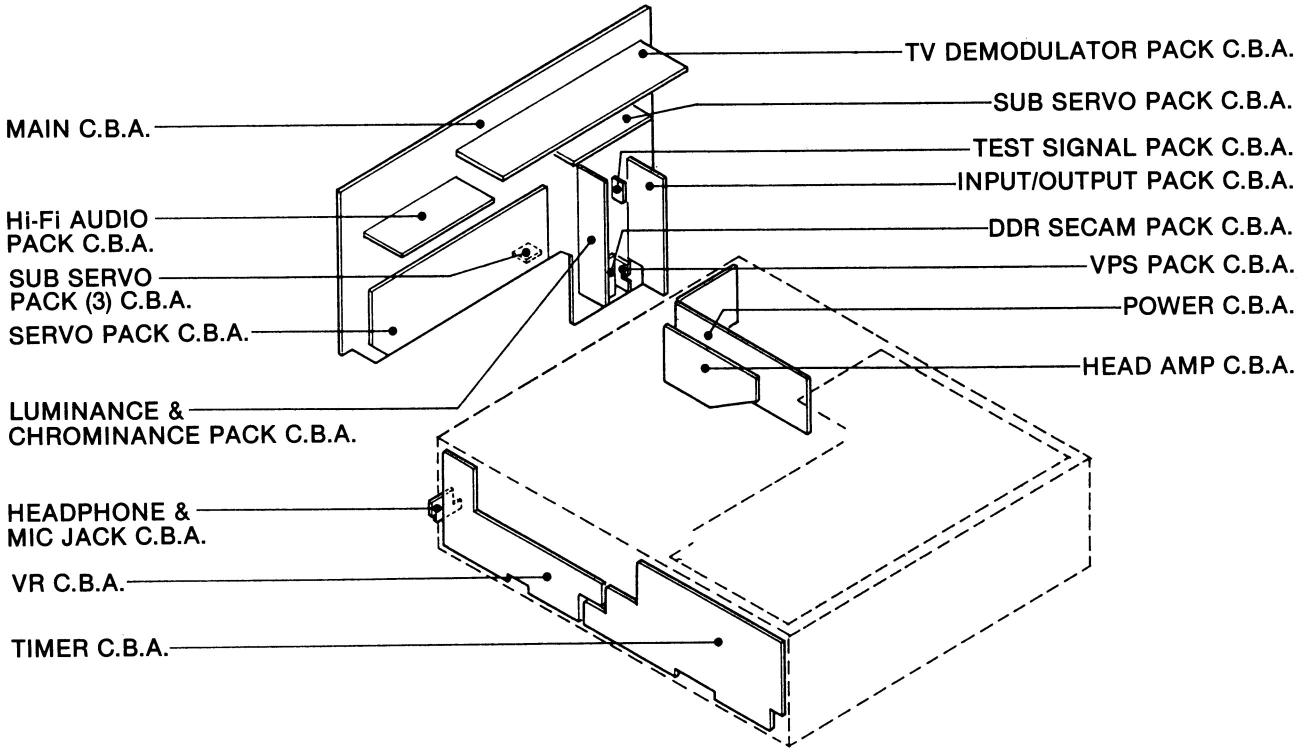
VR C.B.A.


▲ VR6503
REC LEVEL
VR3004 ▲
PICTURE
▲ VR6501
HEAD-PHONE

TIMER C.B.A.


▲ C7501
TIMER CLOCK

CIRCUIT BOARD LAYOUT


TV DEMODULATOR PACK C.B.A.
SUB SERVO PACK C.B.A.
TEST SIGNAL PACK C.B.A.
INPUT/OUTPUT PACK C.B.A.
DDR SECAM PACK C.B.A.
VPS PACK C.B.A.
POWER C.B.A.
HEAD AMP C.B.A.
MAIN C.B.A.
Hi-Fi AUDIO PACK C.B.A.
SUB SERVO PACK (3) C.B.A.
SERVO PACK C.B.A.
LUMINANCE & CHROMINANCE PACK C.B.A.
HEADPHONE & MIC JACK C.B.A.
VR C.B.A.
TIMER C.B.A.

2-4. ELECTRICAL ADJUSTMENT PROCEDURES

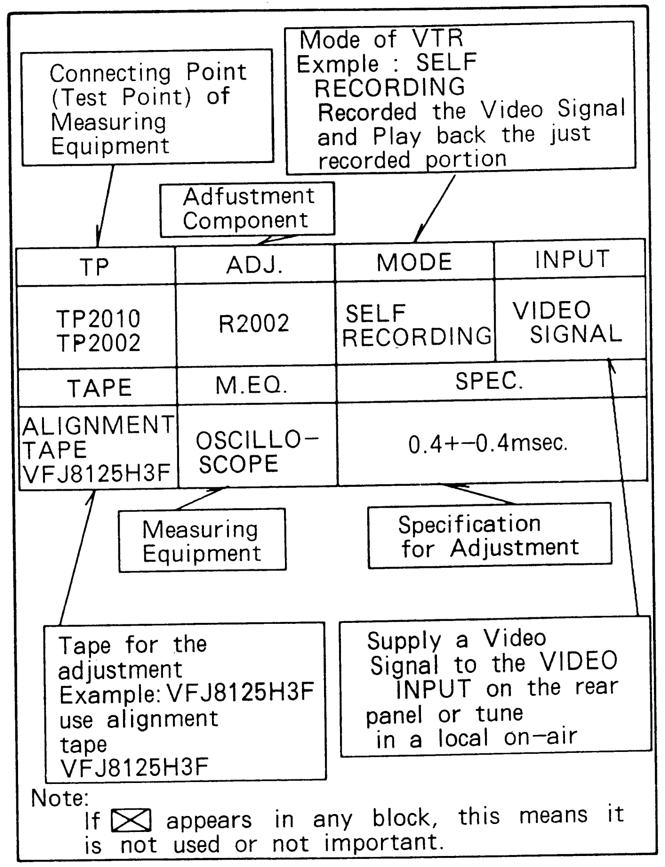
This section provides complete electrical adjustment procedures which may be required for electronic circuits of VHS Video Cassette Recorders.

2-4-1. TEST EQUIPMENTS

To perform the electrical adjustments completely, following equipments are required.

1. VTVM (Vacuum Tube Volt Meter) and DVM (Digital Volt Meter)
   Voltage Range: 0.001～50V
2. Dual-Trace Oscilloscope
   Voltage range: 0.005～50V/div.
   Frequency Range: DC～30MHz
   Probes: 10:1
3. Frequency counter
   Frequency Range: 0～10MHz
4. Signal Generator (Sinewave)
   Frequency Range: 0～500KHz
5. Video Sweep Generator
   Frequency Range: 0～10MHz
6. Colour Monitor TV
7. Plaastic Tip Driver
8. VHS Alignment Tape (VFJ8125H3F)
9. Pattern Generator

2-4-2. HOW TO READ THE ADJUSTMENT PROCEDURES


Connecting Point (Test Point) of Measuring Equipment
Mode of VTR
Exmple : SELF RECORDING
Recorded the Video Signal and Play back the just recorded portion
Adfustment Component
TP
ADJ.
MODE
INPUT
TP2010
TP2002
R2002
SELF RECORDING
VIDEO SIGNAL
TAPE
M.EQ.
SPEC.
ALIGNMENT TAPE VFJ8125H3F
OSCILLO-SCOPE
0.4+-0.4msec.
Measuring Equipment
Specification for Adjustment
Tape for the adjustment Example: VFJ8125H3F use alignment tape VFJ8125H3F
Supply a Video Signal to the VIDEO INPUT on the rear panel or tune in a local on-air

Note:
If ☒ appears in any block, this means it is not used or not important.

Fig. E1

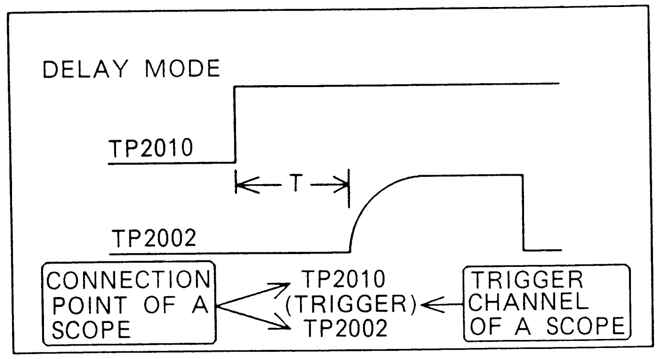

DELAY MODE
TP2010
T
TP2002
CONNECTION POINT OF A SCOPE
TP2010 (TRIGGER)
TP2002
TRIGGER CHANNEL OF A SCOPE

Fig. E2

SERVO Section

2-4-3. VIDEO AUTO TRACKING GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC3001-6	VR3020	STOP	4MHz 200mVp-p (TO TP3001)
TAPE	**M. EQ.**	**SPEC.**	
╱	SIGNAL GEN D.V.M.	3.0+-0.1(V)	

1. Set the output of Sinewave Signal Generator to 4MHz, 200mVp-p and supply it to TP3001.
2. Connect the D.V.M. (Digital Volt Meter) to IC3001-6.
3. Adjust VR3020 so that reading of D.V.M. is 3.0+-0.1 (V).

2-4-4. SLOW FREE RUN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2015	VR2013	STILL	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	FREQUENCY COUNTER	453+-15 (Hz)	

1. Record the Colour Bar in SP Mode and Playback the just recorded portion. Then place the unit in STILL Mode.
2. Make a test mode as shown in Fig. Test mode. Connect a cut Jumper wire.
3. Connect the jumper wire between TP2026 and GND.
4. Adjust VR2013 so that reading of the Frequency Counter is 453+-15 (Hz).

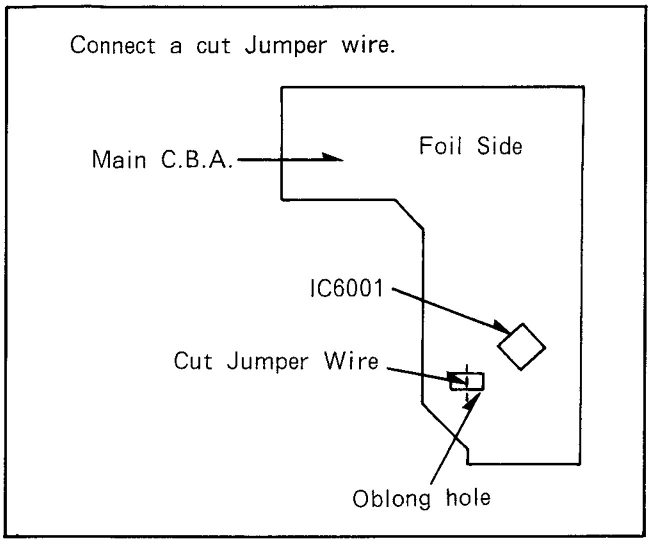

Connect a cut Jumper wire.
Main C.B.A.
Foil Side
IC6001
Cut Jumper Wire
Oblong hole

Fig. Test mode

2-4-5. PG SHIFTER ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2001 TP3002	VR2001	PLAY BACK	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	7.0+-0.5 (H)	

1. Connect the Oscilloscope to TP2001 and TP3002.
2. Playback the VHS Alignment Tape (VFJ8125H3F).
3. Adjust VR2001 so that the phase difference becomes 7.0+-0.5 (H) as shown in Fig. E3.

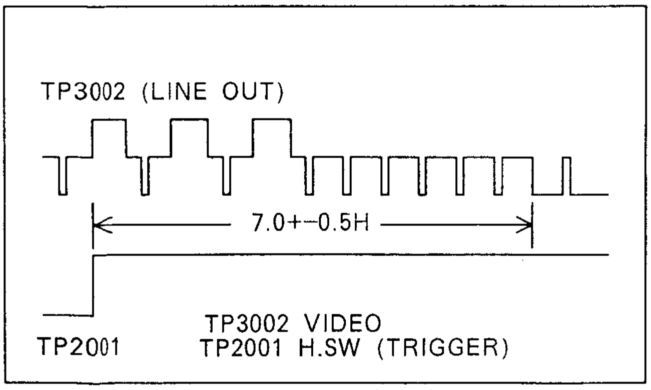

TP3002 (LINE OUT)
7.0+-0.5H
TP2001
TP3002 VIDEO
TP2001 H.SW (TRIGGER)

Fig. E3

2-4-6. ARTIFICIAL V-SYNC ADJUSTMENT

TP	ADJ.	MODE	INPUT
MONITOR SCREEN	VR2010 (SP) VR2009 (LP)	STILL	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	MONITOR	NO V-DANCING	

1. Record the Video Signal in SP Mode and playback the just recorded portion. Then place the unit in STILL Mode.
2. Adjust VR2010 so that the V-Dancing does not appear on the Monitor Screen.
3. Record the Video Signal in LP Mode and playback the just recorded portion. Then place the unit in STILL Mode.
4. Adjust VR2009 so that the V-Dancing does not appear on the Monitor Screen.

2-4-7. SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2002 TP2026	VR2011 (SP) VR2006 (LP)	SLOW	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	17.5+-2 (msec) (SP) 16+-2 (msec) (LP)	

Connect the Oscilloscope to TP2002 and TP2026.

1. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the Unit in 1/5 Speed Slow by Infra-red remote controller. (Press SEARCH button and then press ⊞ button 5 times)
2. Adjust VR2011 so that the phase difference becomes 17.5+-2 (msec) as shown in Fig. E4.
3. Record the Colour Bar in LP Mode and playback the just recorded portion. Then place the Unit in 1/5 Speed Slow by Infra-red remote controller.
4. Adjust VR2006 so that the phase difference becomes 16+-2 (msec) as shown in Fig. E4.

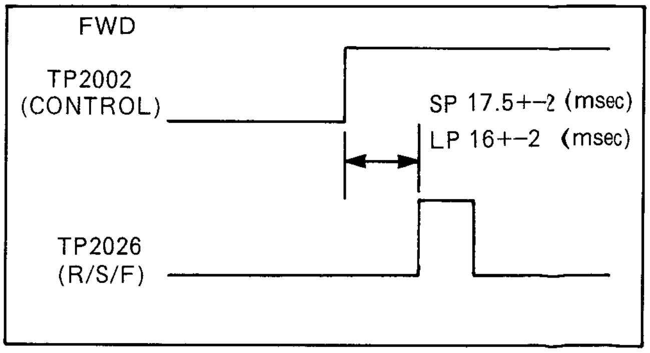

FWD
TP2002
(CONTROL)
SP 17.5+-2 (msec)
LP 16+-2 (msec)
TP2026
(R/S/F)

Fig. E4

2-4-8. REVERSE SLOW TRACKING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP2002 TP2026	VR2019 (SP) VR2018 (LP)	REVERSE SLOW	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	14+-2 (msec) (SP) 10+-2 (msec) (LP)	

Connect the Oscilloscope to TP2002 and TP2026

1. Record the Colour Bar in SP Mode and playback the just recorded portion. Then place the Unit in 1/5 Reverse Slow Mode by Infra-red remote controller. (Press [SEARCH] button and then press ⊟ button 5 times)
2. Adjust VR2019 so that the phase difference becomes 14+-2 (msec) as shown in Fig. E5.
3. Record the Colour Bar in LP Mode and playback the just recorded portion. Then place the Unit in 1/5 Reverse Slow Mode by Infra-red remote controller.
4. Adjust VR2018 so that the phase difference becomes 10+-2 (msec) as shown in Fig. E5.

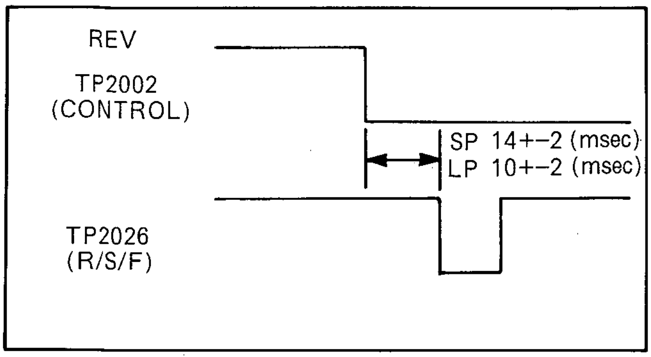


Fig. E5

LUMINANCE, CHROMINANCE & HEAD AMP Section

2-4-9. Y-NR BALANCE ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC302-21	VR302	RECORDING (LP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	WAVE-FORM IS MINIMIZED	

1. Record the Colour Bar in LP Mode.
2. Connect the Oscilloscope to IC302-21.
3. Adjust VR302 so that waveform becomes minimum.

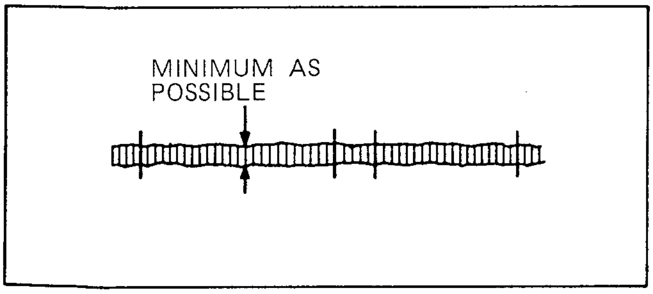


Fig. E6

2-4-10. Y-NR GAIN ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR301	SELF RECORDING AND PLAYBACK (LP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	1.0+-0.05 (Vp-p) (75ohm Terminated)	

1. Record the Colour bar in LP Mode and Playback the just recorded portion.
2. Connect the oscilloscope to TP3002.
3. Adjust VR301 so that the Video Level becomes 1.0+-0.1 (Vp-p).

Achieve this adjustment, Video OUT terminal must be terminated with 75ohm.

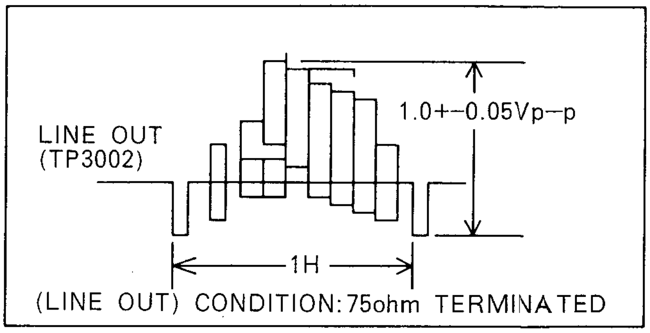


Fig. E7

2-4-11. RECORDING CURRENT ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP507(HOT) TP508(GND)	VR501 (Y) VR502 (C)	RECORDING (SP MODE)	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	32+-2 (mVp-p) (C) 105+-5 (mVp-p) (Y)	

1. Record the Colour Bar in SP Mode.
2. Connect the Oscilloscope to TP507 (HOT) and TP508 (GND).
3. Turn VR501 so that luminance recording current signal becomes closed. (means minimum waveform)
4. Adjust VR502 so that the Chrominance recording current becomes 32+-2 (mVp-p) as shown in Fig. E8.
5. Next, adjust VR501 so that Luminance Recording current becomes 105+-5 (mVp-p) as shown in Fig. E9.

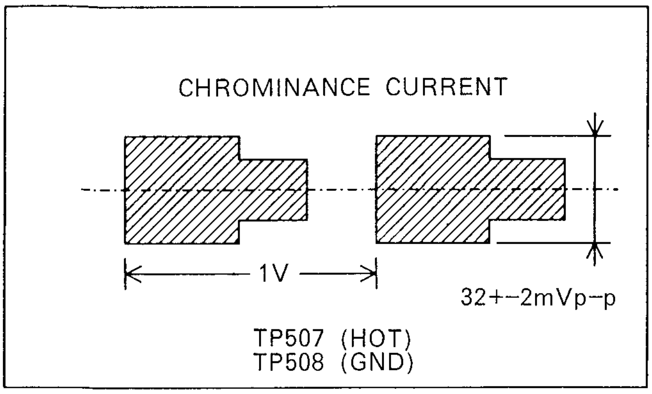

CHROMINANCE CURRENT
1V
32+−2mVp−p
TP507 (HOT)
TP508 (GND)

Fig. E8

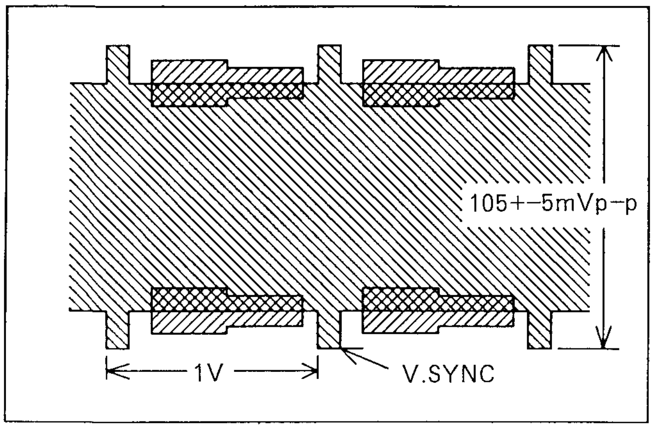

105+−5mVp−p
1V
V.SYNC

Fig. E9

2-4-12. CHROMA RECURSIVE ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC302−8	VR801 VR802	SELF RECORDING AND PLAYPACK	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO−SCOPE	AMPLITUDE IS MINIMIZED	

1. Record the Colour Bar in SP Mode and playback the just recorded portion.
2. Connect the Oscilloscope to IC302−8.
3. Adjust VR801 and VR802 alternately so that the Chrominance Waveform Amplitude becomes minimum.

Befor this adjustment "Y−NR BALANCE ADJUSTMENT" and "RECORDING CURRENT ADJUSTMENT"

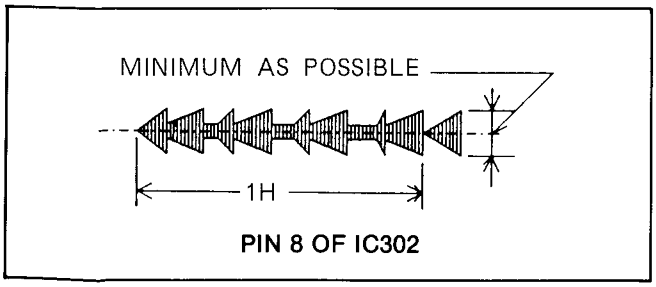

MINIMUM AS POSSIBLE
1H
PIN 8 OF IC302

Fig. E10

2-4-13. CHROMINANCE PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR803	SELF RECORDING AND PLAYBACK	COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO−SCOPE	0.55+−0.05 (Vp−p) (75ohm terminated)	

1. Record the Colour Bar in SP Mode and playback the just recorded portion.
2. Connect the Oscilloscope to TP3002.
3. Adjust VR803 so that the CYAN Level becomes 0.55+−0.05 (Vp−p) as shown in Fig. E11.

Achieve this adjustment, the unit must be terminated with 75ohm.

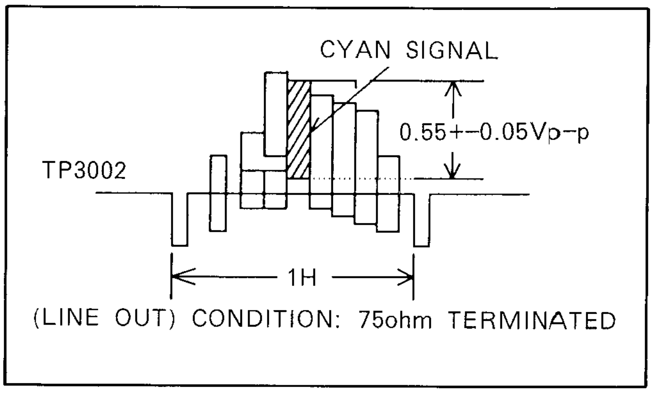

CYAN SIGNAL
0.55+−0.05Vp−p
TP3002
1H
(LINE OUT) CONDITION: 75ohm TERMINATED

Fig. E11

2-4-14. SECAM KILLER ADJUSTMENT

TP	ADJ.	MODE	INPUT
IC851−11	T851	RECORDING	SECAM COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO−SCOPE	PORTION "A" IS PEAK TO NEGATIVE DIRECTION	

1. Record the SECAM Colour Bar.
2. Connect the Oscilloscope to IC851−11.
3. Adjust T851 so that portion "A" is peak to negative direction as shown in Fig. E12.

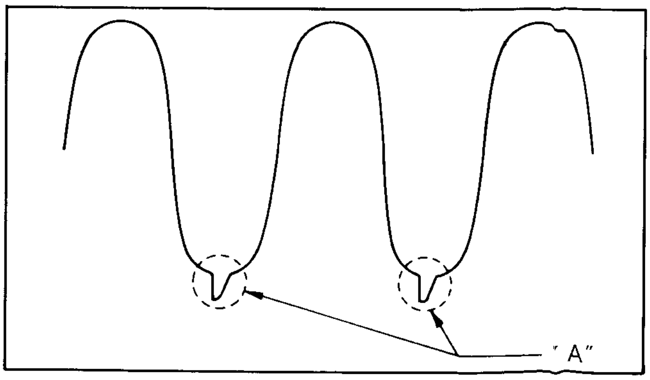
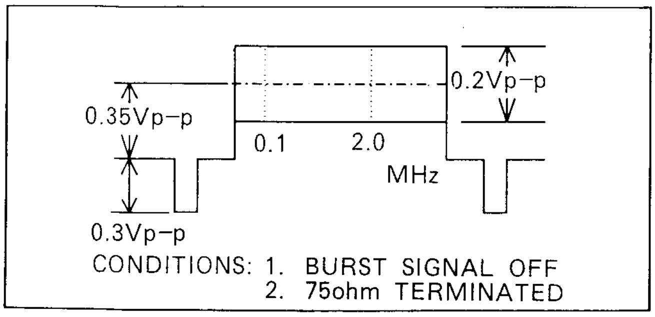


Fig. E12

2-4-15. VIDEO FREQUENCY RESPONSE ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP3002	VR3012 (SP) VR3013 (LP)	SELF RECORDING AND PLAYBACK	VIDEO SWEEP SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE/ VIDEO SWEEP GENERATOR	B/A=0+−1 (dB) (90∼110(%))	

1. Set the Video Sweep Generator output as shown in Fig. E13.



CONDITIONS: 1. BURST SIGNAL OFF
2. 75ohm TERMINATED

Fig. E13

2. Record the Video Sweep Signal in SP Mode and playback just recorded portion.
3. Set the Tracking control to Fix position.
4. Adjust VR3012 so that the Frequency Response becomes B/A=0+−1dB as shown in Fig.
5. Record the Video Sweep Signal in LP Mode and playback just recorded portion.
6. Set the Tracking control to Fix position.
7. Adjust VR3013 so that the Frequency Response becomes B/A=0+−1dB as shown in Fig. E14.

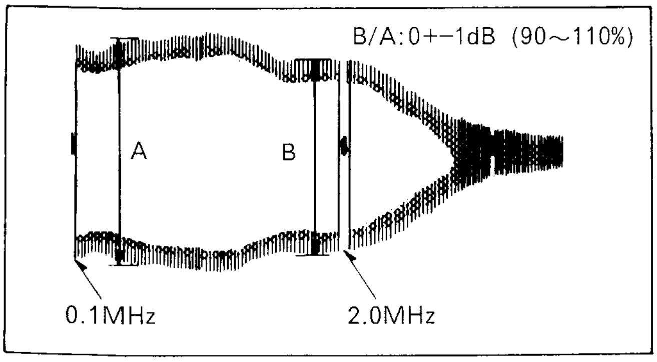


Fig. E14

NORMAL AUDIO & Hi-Fi AUDIO Section

2-4-16. AUDIO DEVIATION ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4502 (L) VR4507 (R)	SELF RECORDING AND PLAYBACK	1KHz −10dBV (316mVrms)
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M./ SINEWAVE SIGNAL GEN	PLAYBACK LEVEL IS SAME AS E−E LEVEL	

1. Set the Output of Signal Generator to 1KHz, −10dBV (316mVrms).
2. Connect the Signal Generator to both Audio In terminal.
3. Adjust Rec Level Control VR so that both Audio Output level becomes 400mVrms (−8dBV).
4. Record the Audio Signal and playback the just recorded portion.
5. Adjust VR4502 so that the Audio (L) Output Level becomes 400mVrms (−8dBV).
6. Adjust VR4507 so that the Audio (R) Output Level becomes 400mVrms (−8dBV).

2-4-17. AUDIO CARRIER FREQUENCY (fo) ADJUSTMENT

TP	ADJ.	MODE	INPUT
(L) BETWEEN C4516 AND R4513 (R) BETWEEN C4566 AND R4563	(L) VR4501 (R) VR4509	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	(L) 1.4 (MHz)+−3 (KHz) (R) 1.8 (MHz)+−3 (KHz)	

1. Connect the Frequency Counter to between C4516 and R4513.
2. Adjust VR4501 so that reading of Frequency counter is 1.4 (MHz)+−3 (KHz).
3. Connect the Frequency Counter to between C4566 and R4563.
4. Adjust VR4509 so that reading of Frequency counter is 1.8 (MHz)+−3 (KHz).

2-4-18. AUDIO BIAS CURRENT ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP4002 (+) TP4003 (−)	VR4002	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	V.T.V.M.	2.4+−0.1 (mVrms)	

1. Connect the V.T.V.M. to TP4002 (+) and TP4003 (−). (Do not use long cable for Connection)
2. Make a short circuit at terminal of the Audio input.
3. Place the Unit in Recording Mode.
4. Adjust VR4002 so that reading of V.T.V.M. becomes 2.4+−0.1 (mVrms).

2-4-19. Hi-Fi AUDIO HEAD SWITCHING SHIFTER ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP4511 TP2001	VR4510	PLAYBACK	
TAPE	**M. EQ.**	**SPEC.**	
ALIGNMENT TAPE VFJ8125H3F	OSCILLO-SCOPE	$T=\frac{T2-(T2-T1)}{2}$ (msec)	

1. Playback the VHS Alignment Tape (VFJ8125H3F).
2. Connect the Oscilloscope to TP4511 and TP2001.
3. Adjust VR4510 while listening to the stereo playback sound.
   (1) Confirm the "T2" time when the abnormal sound just occurs during turning clockwise on VR4510.
   (2) Confirm the "T1" time when the abnormal sound just occurs during turning counter clockwise on VR4510.
   (3)- Adjust VR4510 so that the falling edge "T" of Audio H.SW. pulse becomes the center portion of the both "T2" and "T1".

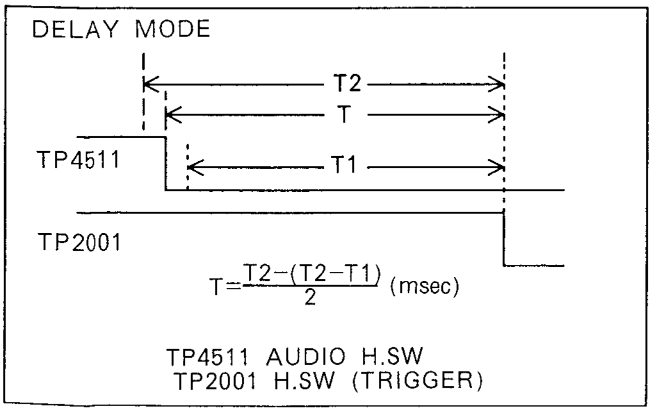


Fig. E16

2-4-20. LEVEL METER SENSITIVITY ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
LEVEL METER	VR4004	STOP	1(KHz) −10(dBV) (316mVrms)
TAPE	**M. EQ.**	**SPEC.**	
	SIGNAL GEN./ V.T.V.M.	0dB INDICATOR JUST LIGHTS UP	

1. Set the Audio Out Selector (On Remote controler) for STEREO position.
2. Set the output of Signal Generator to 1(KHz), −10dBV (316mVrms) and supply it to both Audio input jacks (L) and (R).
3. Adjust VR4004 so that the 0dB of Level Meter just lights up.

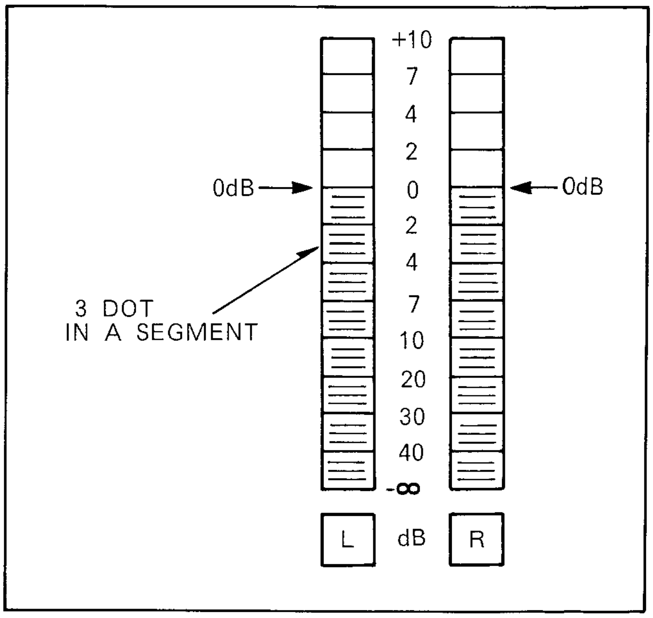


Fig. E17

2-4-21. Hi-Fi AUDIO RECORDING CURRENT ADJUSTMENT

TP	**ADJ.**	**MODE**	**INPUT**
TP4507	VR4503	RECORDING	
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	480+−10 (mVp−p)	

1. Set the Input Signal Selector to LINE.
2. Connect the oscilloscope to TP4507.
3. Place the Unit in recording with SP mode.
4. Adjust VR4503 so that the recording current becomes 480+−10 (mVp−p).

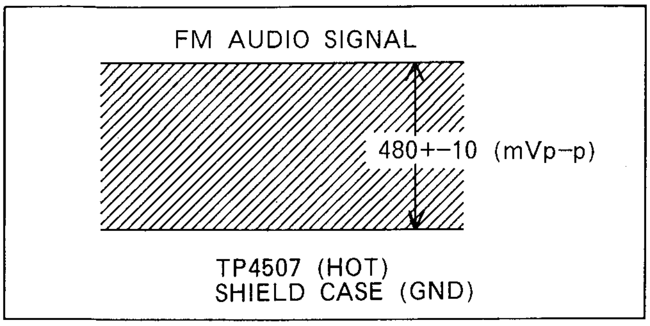


Fig. E18

2-4-22. AUDIO PLAYBACK LEVEL ADJUSTMENT

TP	ADJ.	MODE	INPUT
LINE OUT	VR4001	SELF RECORDING AND PLAYBACK	(AUDIO) 1(KHz) −10(dBV) (316mVrms) (VIDEO) COLOUR BAR
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	SIGNAL GEN./ V.T.V.M.	E−E LEVEL+−0.5 (dB) (E−E LEVEL+−20mVrms)	

Note:
Befor this adjustment Tape Interchangeability Adjustment must be completed.

1. Set the Signal Generator to 1(KHz), −10(dBV) (316mVrms) and record the Colour Bar with 1(KHz), −10(dBV) (316mVrms) Audio Signal in SP mode.
2. Memorize the Audio E−E Level while recording Audio Signal 1(KHz), −10(dBV) (316mVrms).
3. Playback just recorded portion.
4. Adjust VR4001 so that the Playback Level becomes E−E Level+−0.5(dB).

2-4-23. Hi-Fi AUDIO MUTING ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP4502	VR4505	SELF RECORDING AND PLAYBACK	VIDEO SIGNAL
TAPE	**M. EQ.**	**SPEC.**	
BLANK TAPE	OSCILLO-SCOPE	STEREO INDICATION JUST LIGHTS UP	

Note 1:
Before this adjustment "Tape interchangeability Adjustment" must be completed.

Note 2:
To achieve this adjustment, the luminance recording current adjustment should be performed as follows.

(1) Connect the Oscilloscope to TP507 (HOT) and TP508 (GND) and then adjust VR501 for 135 (mVp−p) [Refer to Luminance Recording Current Adjustment.]
(2) After this Adjustment, the Luminance Recording Current Adjustment must be returned to original position again.

1. Set Audio Out Selector to STEREO position.
2. Preadjust VR4505 until the Hi−Fi indicator on the front panel display turns the NORMAL indication.
3. Then slowly adjust VR4505 where the STEREO indication just light up.
4. Confirm that the abnormal sound does not contain in the playback Hi−Fi sound.

TIMER Section

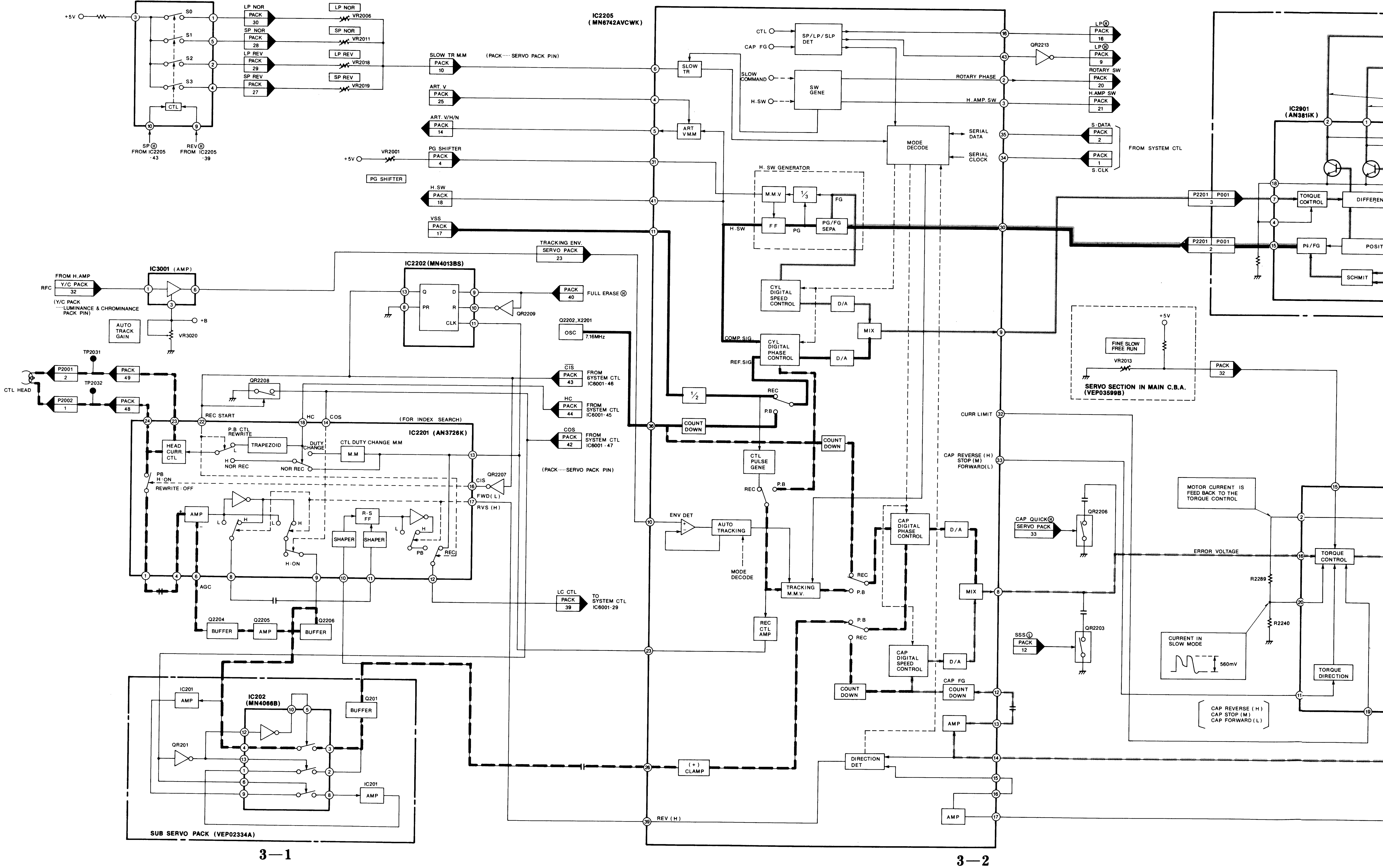
2-4-24. TIMER REFERENCE CLOCK ADJUSTMENT

TP	ADJ.	MODE	INPUT
TP7501	C7501	STOP	
TAPE	**M. EQ.**	**SPEC.**	
	FREQUENCY COUNTER	7812.5+−0.008 (us)	

1. Connect P7501−3 and P7501−4, then supply DC 5.0+−0.1(V) to P7501−3.
2. Connect P7501−6 and GND.
3. Connect the Frequency Counter to TP7501.
4. Adjust C7501 so that TP7501 becomes 7812.5+−0.008(us)

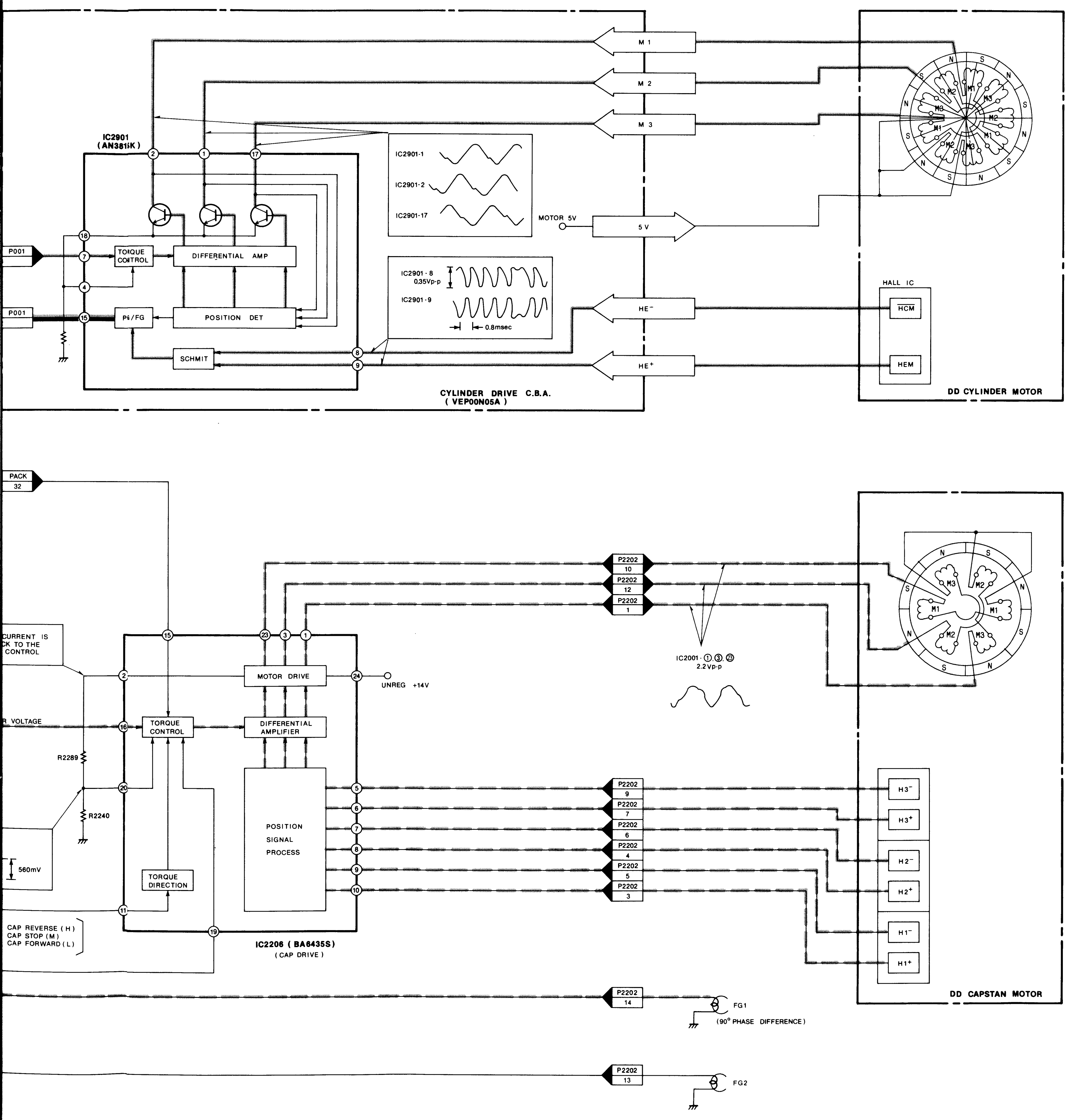
SECTION 3
BLOCK DIAGRAMS & SCHEMATIC DIAGRAMS
3-1. SERVO BLOCK DIAGRAM

CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP
CYLINDER SERVO SPEED LOOP
CAPSTAN SERVO SPEED LOOP



IC2204 (MN4052BS)
+5V
S0
S1
S2
S3
CTL
SP(H) FROM IC2205 ·43
REV(H) FROM IC2205 ·39
LP NOR PACK 30
SP NOR PACK 28
LP REV PACK 29
SP REV PACK 27
(SLOW TR FIX)
LP NOR VR2006
SP NOR VR2011
LP REV VR2018
SP REV VR2019
SLOW TR M.M PACK 10
(PACK····SERVO PACK PIN)
ART. V PACK 25
ART. V/H/N PACK 14
PG SHIFTER PACK 4
+5V
VR2001
PG SHIFTER
H. SW PACK 18
VSS PACK 17
IC2205 (MN6742AVCWK)
SLOW TR
ART V.M.M
CTL
CAP FG
SP/LP/SLP DET
SLOW COMMAND
H. SW
SW GENE
ROTARY PHASE
H. AMP. SW
QR2213
LP(H) PACK 16
LP(H) PACK 9
ROTARY SW PACK 20
H.AMP SW PACK 21
MODE DECODE
SERIAL DATA
SERIAL CLOCK
S·DATA PACK 2
PACK 1 S·CLK
FROM SYSTEM CTL
H. SW GENERATOR
M.M.V
1/3
FG
F F
PG
PG/FG SEPA
H. SW
P2201 P001 3
P2201 P001 2
IC2901 (AN3815K)
TORQUE CONTROL
DIFFEREN
PG/FG
POSIT
SCHMIT
TRACKING ENV. SERVO PACK 23
FROM H.AMP
RFC
Y/C PACK 32
(Y/C PACK ····LUMINANCE & CHROMINANCE PACK PIN)
IC3001 (AMP)
AUTO TRACK GAIN
VR3020
+B
IC2202 (MN4013BS)
Q D PR R CLK
QR2209
PACK 40 FULL ERASE(H)
Q2202, X2201
OSC 7.16MHz
CYL DIGITAL SPEED CONTROL
D/A
MIX
COMP. SIG.
CYL DIGITAL PHASE CONTROL
REF. SIG.
+5V
FINE SLOW FREE RUN
VR2013
PACK 32
SERVO SECTION IN MAIN C.B.A. (VEP03599B)
TP2031
TP2032
CTL HEAD
P2001 2
P2002 1
PACK 49
PACK 48
QR2208
CIS PACK 43 FROM SYSTEM CTL IC6001·46
HC PACK 44 FROM SYSTEM CTL IC6001·45
COS PACK 42 FROM SYSTEM CTL IC6001·47
(PACK····SERVO PACK PIN)
REC START
HC
COS
(FOR INDEX SEARCH)
IC2201 (AN3726K)
P.B CTL REWRITE
HEAD CURR. CTL
TRAPEZOID
DUTY CHANGE
CTL DUTY CHANGE M.M
M.M
NOR REC
PB H·ON
REWRITE·OFF
QR2207
CIS
FWD(L)
RVS(H)
AMP
R·S FF
SHAPER
H·ON
PB
REC
AGC
Q2204 BUFFER
Q2205 AMP
Q2206 BUFFER
LC CTL PACK 39 TO SYSTEM CTL IC6001·29
1/2
COUNT DOWN
CTL PULSE GENE
ENV DET
AUTO TRACKING
MODE DECODE
TRACKING M.M.V.
REC CTL AMP
CAP DIGITAL PHASE CONTROL
CAP DIGITAL SPEED CONTROL
CURR LIMIT
CAP REVERSE (H) STOP (M) FORWARD (L)
CAP QUICK(H) SERVO PACK 33
QR2206
QR2203
SSS(L) PACK 12
CAP FG
AMP
DIRECTION DET
(+) CLAMP
REV (H)
MOTOR CURRENT IS FEED BACK TO THE TORQUE CONTROL
ERROR VOLTAGE
R2289
R2240
CURRENT IN SLOW MODE
560mV
TORQUE CONTROL
TORQUE DIRECTION
CAP REVERSE (H) CAP STOP (M) CAP FORWARD (L)
IC201 AMP
IC202 (MN4066B)
Q201 BUFFER
QR201
IC201 AMP
SUB SERVO PACK (VEP02334A)

ER SERVO SPEED LOOP
N SERVO SPEED LOOP


M 1
M 2
M 3
IC2901
(AN381&K)
2
1
17
18
7
4
15
P001
P001
TORQUE CONTROL
DIFFERENTIAL AMP
P&/FG
POSITION DET
SCHMIT
8
9
IC2901-1
IC2901-2
IC2901-17
MOTOR 5V
5 V
IC2901 - 8
0.35Vp-p
IC2901 - 9
0.8msec
HE⁻
HE⁺
CYLINDER DRIVE C.B.A.
(VEP00N05A)
HALL IC
HCM
HEM
DD CYLINDER MOTOR
N
S
M1
M2
M3
PACK
32
CURRENT IS
CK TO THE
CONTROL
R VOLTAGE
R2289
R2240
560mV
CAP REVERSE (H)
CAP STOP (M)
CAP FORWARD (L)
15
23
3
1
2
24
16
20
11
19
5
6
7
8
9
10
MOTOR DRIVE
UNREG +14V
TORQUE CONTROL
DIFFERENTIAL AMPLIFIER
POSITION SIGNAL PROCESS
TORQUE DIRECTION
IC2206 (BA6435S)
(CAP DRIVE)
P2202 10
P2202 12
P2202 1
IC2001 - ①③㉓
2.2Vp-p
P2202 9
P2202 7
P2202 6
P2202 4
P2202 5
P2202 3
H3⁻
H3⁺
H2⁻
H2⁺
H1⁻
H1⁺
DD CAPSTAN MOTOR
P2202 14
FG1
(90° PHASE DIFFERENCE)
P2202 13
FG2

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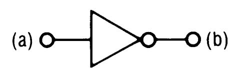</td><td>
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<tr><td>OUT</td><td>(b)</td><td>L</td><td>H</td></tr>
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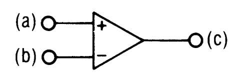</td><td>
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(b)</td><td>(a)>(b)</td><td>(a)<(b)</td></tr>
<tr><td>OUT</td><td>(c)</td><td>H</td><td>L</td></tr>
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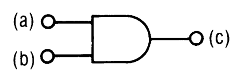</td><td>
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<tr><td>OUT</td><td>(c)</td><td>L</td><td>L</td><td>L</td><td>H</td></tr>
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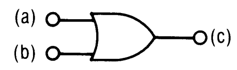</td><td>
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<tr><td>OUT</td><td>(c)</td><td>L</td><td>H</td><td>H</td><td>H</td></tr>
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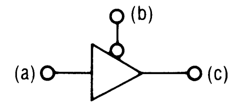</td><td>
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※ High Impedance</td></tr>
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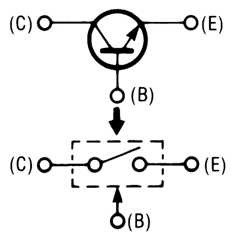</td><td>
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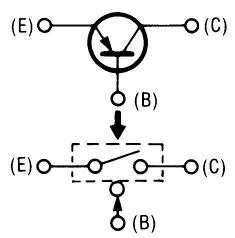
<tr><td>TR. SW</td><td>ON</td><td>OFF</td></tr>
</table></td></tr>
<tr><td>TR. SW (PNP TYPE)
</td><td>
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<tr><td>TR. SW</td><td>OFF</td><td>ON</td></tr>
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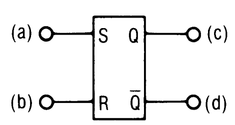</td><td>
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<tr><td>OUT</td><td>(c)</td><td>※</td><td>L</td><td>H</td></tr>
<tr><td></td><td>(d)</td><td>◆</td><td>H</td><td>L</td></tr>
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※ Initial condition is maintained.
◆ Initial condition is reverced.</td></tr>
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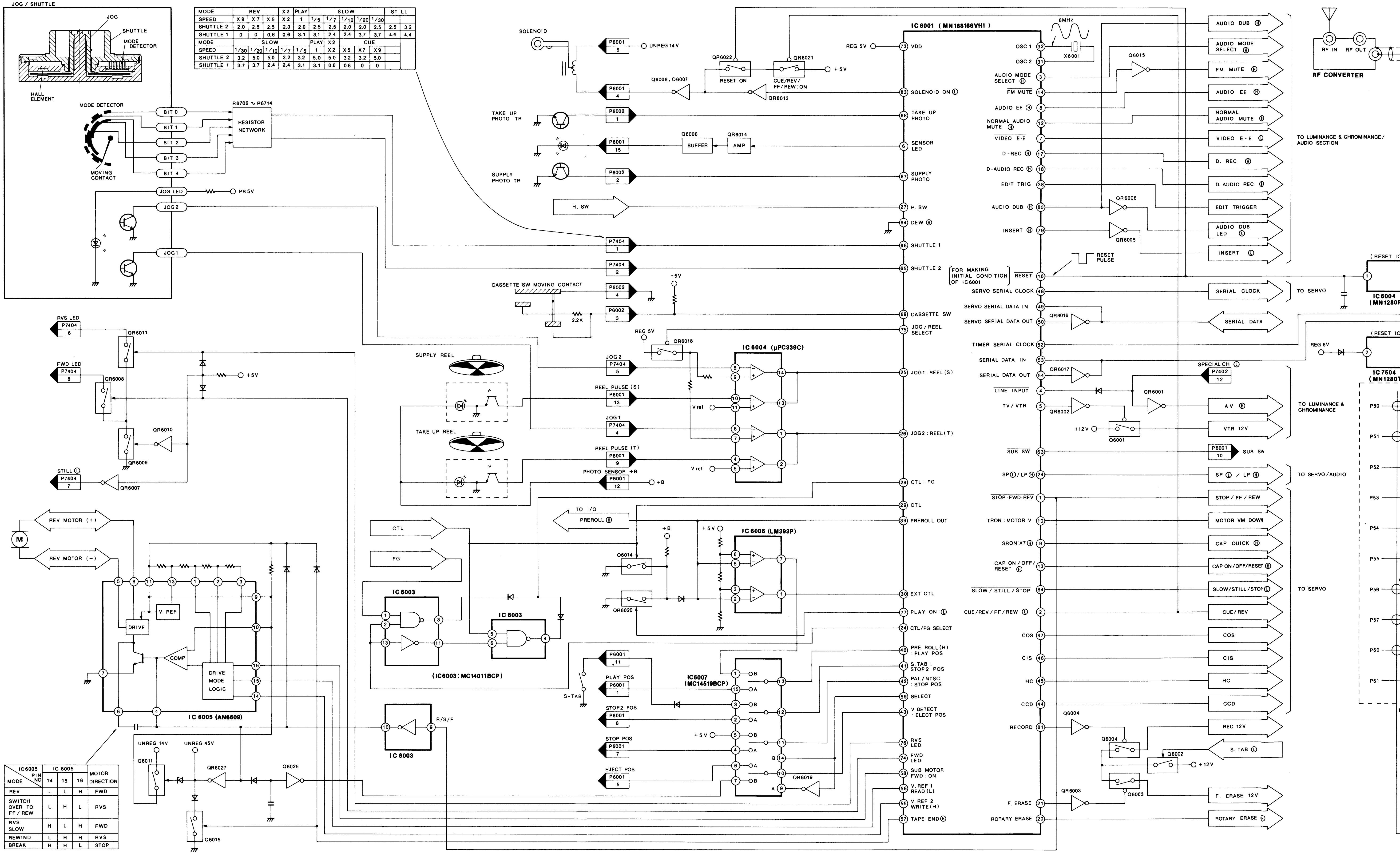
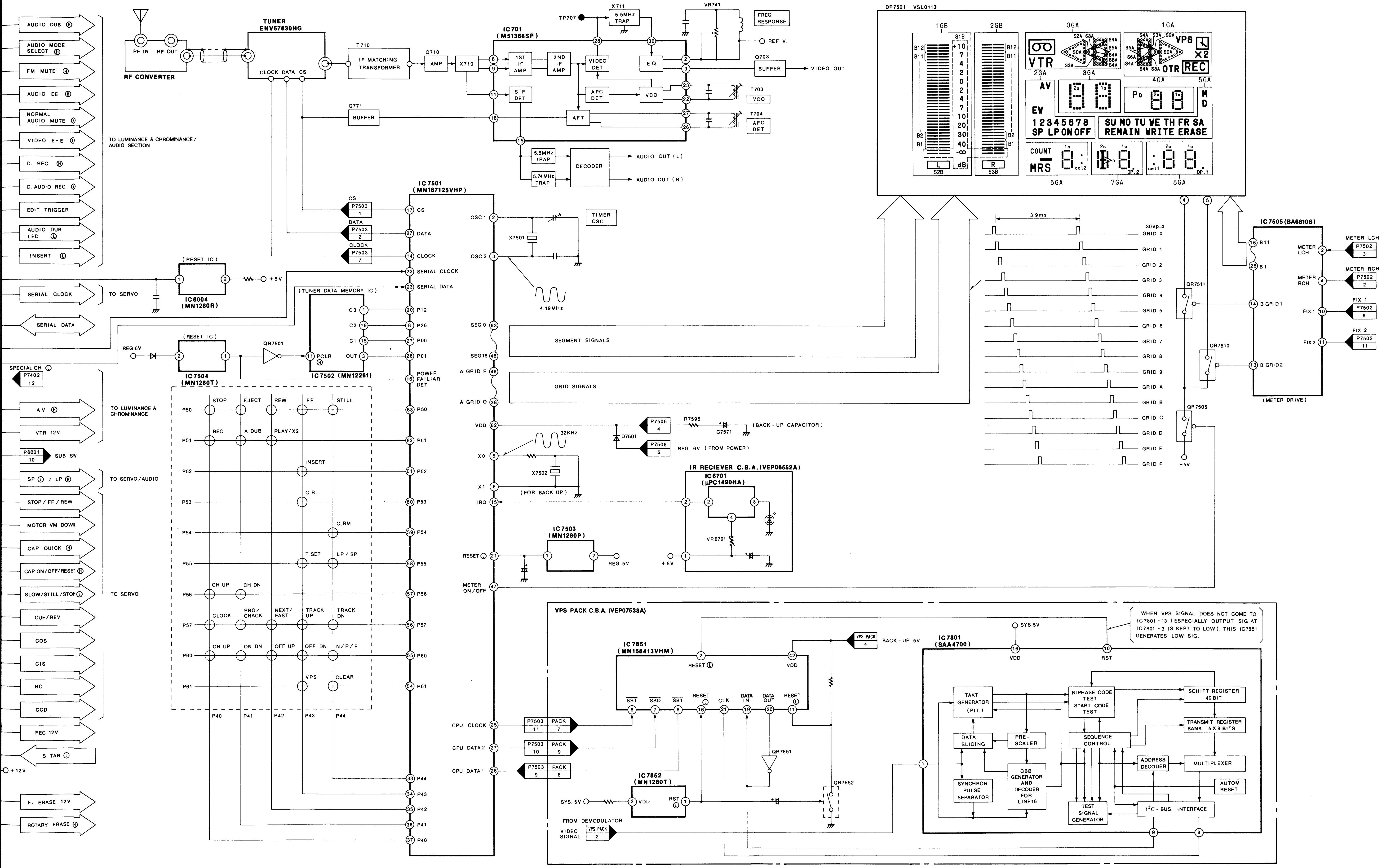
3-2. SYSTEM CONTROL BLOCK DIAGRAM


JOG / SHUTTLE
JOG
SHUTTLE
MODE DETECTOR
HALL ELEMENT
MODE DETECTOR
MOVING CONTACT
BIT 0
BIT 1
BIT 2
BIT 3
BIT 4
JOG LED
JOG 2
JOG 1
PB 5V
R6702 ~ R6714
RESISTOR NETWORK
RVS LED
P7404
6
FWD LED
P7404
8
QR6011
QR6008
QR6010
QR6009
+5V
STILL Ⓛ
P7404
7
QR6007
REV MOTOR (+)
REV MOTOR (−)
M
V. REF
DRIVE
COMP
DRIVE MODE LOGIC
IC 6005 (AN6609)
UNREG 14V
UNREG 45V
Q6011
QR6027
Q6025
Q6015
SOLENOID
P6001
6
UNREG 14V
P6001
4
Q6006, Q6007
QR6022
RESET : ON
QR6021
CUE/REV/ FF/REW : ON
QR6013
+5V
TAKE UP PHOTO TR
P6002
1
P6001
15
Q6006
BUFFER
QR6014
AMP
SUPPLY PHOTO TR
P6002
2
H. SW
P7404
1
P7404
2
CASSETTE SW MOVING CONTACT
P6002
4
P6002
3
2.2K
+5V
REG 5V
QR6018
SUPPLY REEL
TAKE UP REEL
JOG 2
P7404
5
REEL PULSE (S)
P6001
13
JOG 1
P7404
4
REEL PULSE (T)
P6001
9
PHOTO SENSOR +B
P6001
12
+B
IC 6004 (μPC339C)
V ref
V ref
TO I/O
PREROLL Ⓗ
CTL
FG
IC 6003
IC 6003
(IC6003: MC14011BCP)
+B
+5V
Q6014
QR6020
IC 6006 (LM393P)
P6001
11
S-TAB
PLAY POS
P6001
1
STOP2 POS
P6001
8
STOP POS
P6001
7
EJECT POS
P6001
5
+5V
IC6007 (MC14519BCP)
QR6019
IC 6003
R/S/F
REG 5V
IC 6001 (MN188166VHI)
VDD
SOLENOID ON Ⓛ
TAKE UP PHOTO
SENSOR LED
SUPPLY PHOTO
H. SW
DEW Ⓗ
SHUTTLE 1
SHUTTLE 2
CASSETTE SW
JOG / REEL SELECT
JOG1 : REEL (S)
JOG2 : REEL (T)
CTL : FG
CTL
PREROLL OUT
EXT CTL
PLAY ON : Ⓛ
CTL/FG SELECT
PRE ROLL (H) : PLAY POS
S. TAB : STOP 2 POS
PAL/NTSC : STOP POS
SELECT
V DETECT : ELECT POS
RVS LED
FWD LED
SUB MOTOR FWD : ON
V. REF 1 READ (L)
V. REF 2 WRITE (H)
TAPE END Ⓗ
8MHz
OSC 1
OSC 2
X6001
AUDIO MODE SELECT Ⓗ
FM MUTE
AUDIO EE Ⓗ
NORMAL AUDIO MUTE Ⓗ
VIDEO E-E
D-REC Ⓗ
D-AUDIO REC Ⓗ
EDIT TRIG
AUDIO DUB Ⓗ
INSERT Ⓗ
RESET PULSE
FOR MAKING INITIAL CONDITION OF IC6001
RESET
SERVO SERIAL CLOCK
SERVO SERIAL DATA IN
SERVO SERIAL DATA OUT
TIMER SERIAL CLOCK
SERIAL DATA IN
SERIAL DATA OUT
LINE INPUT
TV / VTR
SUB SW
SP Ⓛ / LP Ⓗ
STOP·FWD·REV
TRON : MOTOR V
SRON : X7 Ⓗ
CAP ON / OFF / RESET Ⓗ
SLOW / STILL / STOP
CUE/REV/FF/REW Ⓛ
COS
CIS
HC
CCD
RECORD
F. ERASE
ROTARY ERASE
Q6015
QR6006
QR6005
QR6016
QR6017
QR6001
QR6002
Q6001
+12V
Q6004
Q6004
Q6002
+12V
QR6003
Q6003
AUDIO DUB Ⓗ
AUDIO MODE SELECT Ⓗ
FM MUTE Ⓗ
AUDIO EE Ⓗ
NORMAL AUDIO MUTE Ⓛ
VIDEO E-E Ⓛ
D. REC Ⓗ
D. AUDIO REC Ⓛ
EDIT TRIGGER
AUDIO DUB LED Ⓛ
INSERT Ⓛ
TO LUMINANCE & CHROMINANCE / AUDIO SECTION
SERIAL CLOCK
TO SERVO
SERIAL DATA
SPECIAL CH Ⓛ
P7402
12
AV Ⓗ
VTR 12V
TO LUMINANCE & CHROMINANCE
P6001
10
SUB SW
SP Ⓛ / LP Ⓗ
TO SERVO/AUDIO
STOP / FF / REW
MOTOR VM DOWN
CAP QUICK Ⓗ
CAP ON/OFF/RESET Ⓗ
SLOW/STILL/STOP Ⓛ
CUE/REV
COS
CIS
HC
CCD
TO SERVO
REC 12V
S. TAB Ⓛ
F. ERASE 12V
ROTARY ERASE Ⓗ
RF IN
RF OUT
RF CONVERTER
(RESET IC
IC6004
(MN1280
REG 6V
IC 7504
(MN1280
P50
P51
P52
P53
P54
P55
P56
P57
P60
P61

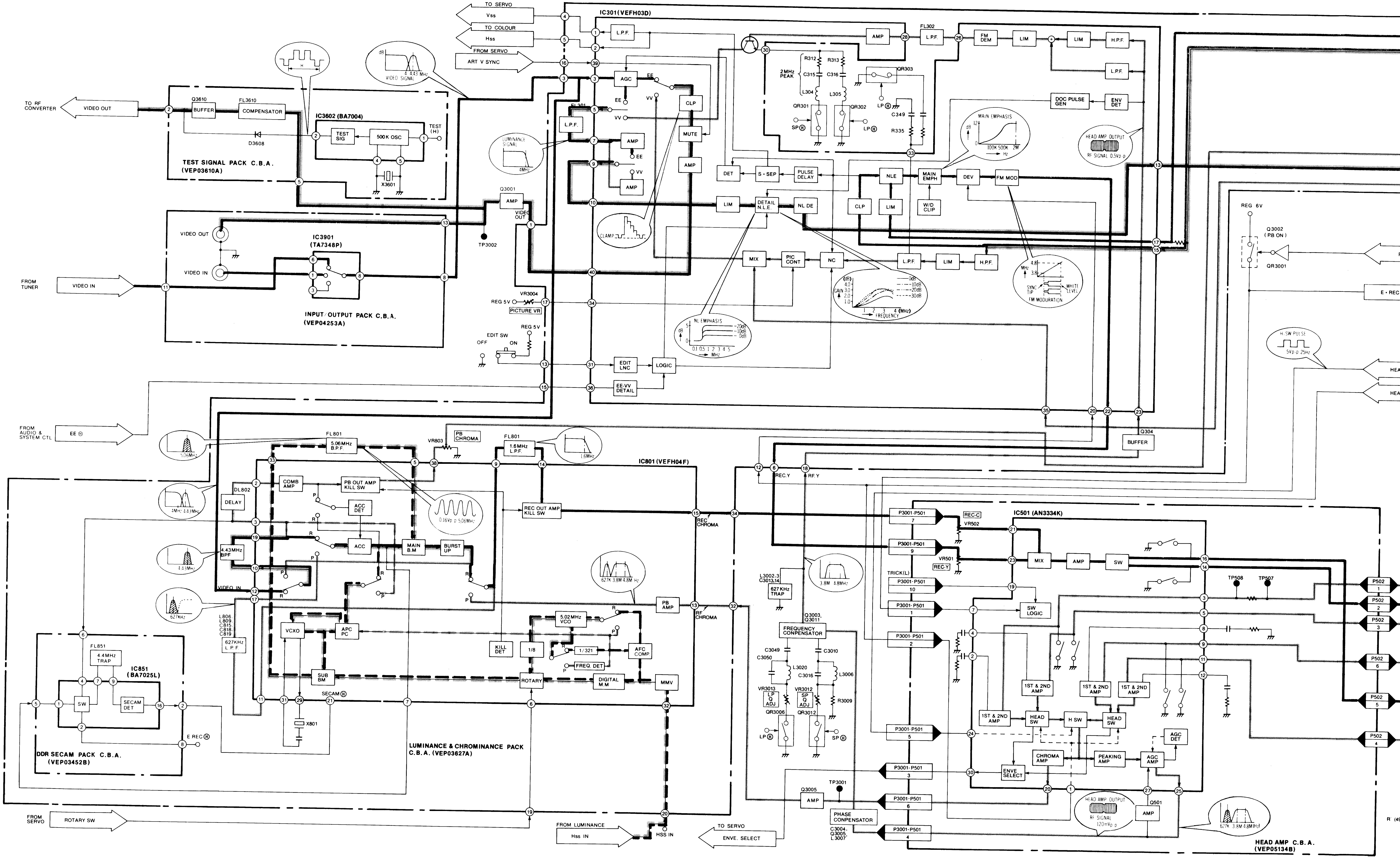
MODE	REV			X 2	PLAY	SLOW					STILL	
SPEED	X 9	X 7	X 5	X 2	1	1/5	1/7	1/10	1/20	1/30		
SHUTTLE 2	2.0	2.5	2.5	2.0	2.0	2.5	2.5	2.0	2.0	2.5	2.5	3.2
SHUTTLE 1	0	0	0.6	0.6	3.1	3.1	2.4	2.4	3.7	3.7	4.4	4.4
MODE	SLOW					PLAY	X 2	CUE				
SPEED	1/30	1/20	1/10	1/7	1/5	1	X 2	X 5	X 7	X 9		
SHUTTLE 2	3.2	5.0	5.0	3.2	3.2	5.0	5.0	3.2	3.2	5.0		
SHUTTLE 1	3.7	3.7	2.4	2.4	3.1	3.1	0.6	0.6	0	0		

IC6005 PIN NO / MODE	IC 6005			MOTOR DIRECTION
	14	15	16	
REV	L	L	H	FWD
SWITCH OVER TO FF / REW	L	H	L	RVS
RVS SLOW	H	L	H	FWD
REWIND	L	H	H	RVS
BREAK	H	H	L	STOP

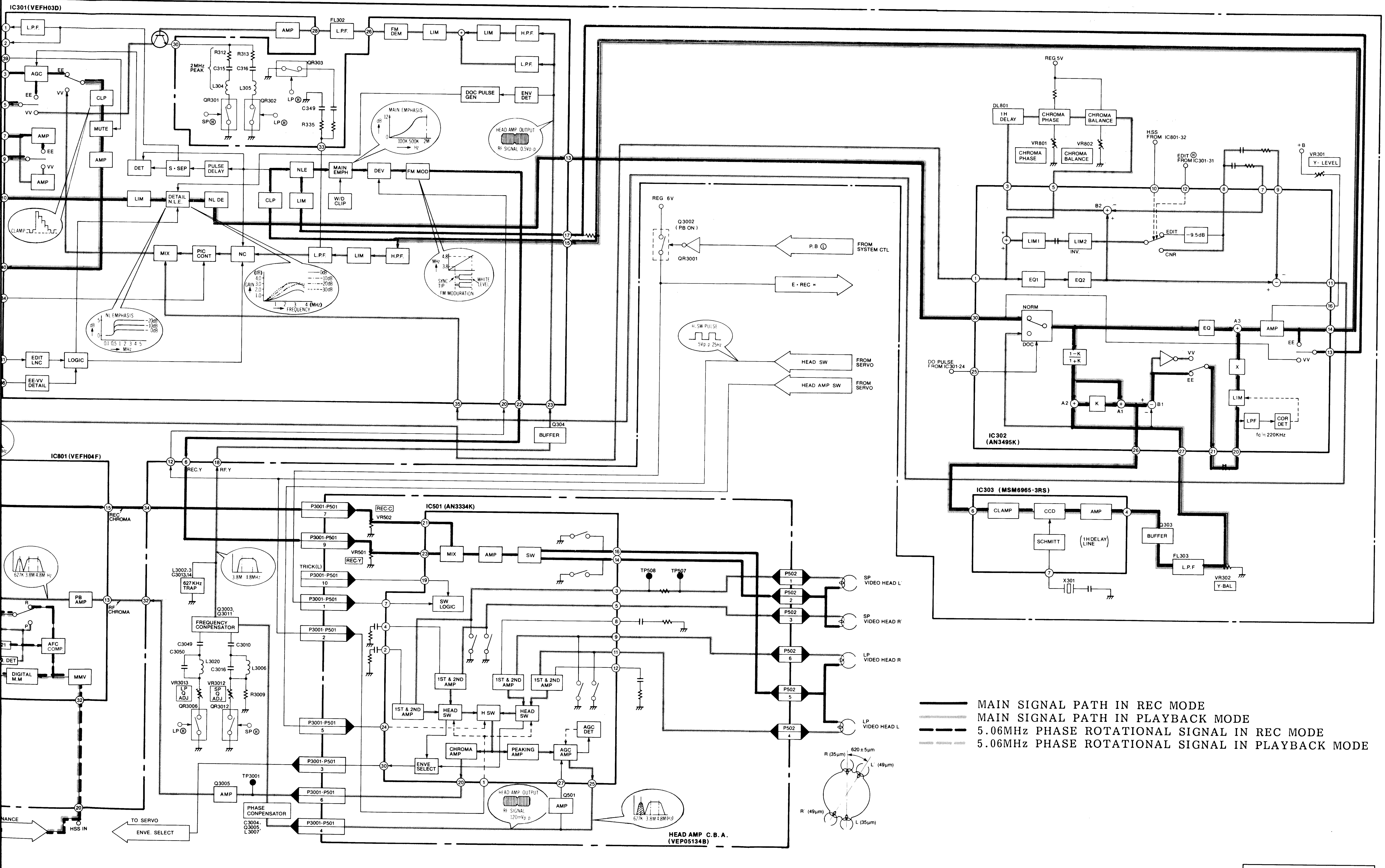
Back Page:
SERVO Section


AUDIO DUB Ⓗ
AUDIO MODE SELECT Ⓗ
FM MUTE Ⓗ
AUDIO EE Ⓗ
NORMAL AUDIO MUTE Ⓛ
VIDEO E-E Ⓛ
D. REC Ⓗ
D. AUDIO REC Ⓛ
EDIT TRIGGER
AUDIO DUB LED Ⓛ
INSERT Ⓛ
TO LUMINANCE & CHROMINANCE/ AUDIO SECTION
RF IN
RF OUT
RF CONVERTER
TUNER
ENV57830HG
CLOCK DATA CS
T710
IF MATCHING TRANSFORMER
Q710
AMP
X710
Q771
BUFFER
IC701
(M51366SP)
1ST IF AMP
2ND IF AMP
VIDEO DET
SIF DET.
APC DET
VCO
AFT
EQ
TP707
X711
5.5MHz TRAP
VR741
FREQ RESPONSE
REF V.
Q703
BUFFER
VIDEO OUT
T703
VCO
T704
AFC DET
5.5MHz TRAP
5.74MHz TRAP
DECODER
AUDIO OUT (L)
AUDIO OUT (R)
IC7501
(MN187125VHP)
CS
P7503
1
DATA
P7503
2
CLOCK
P7503
7
CS
DATA
CLOCK
SERIAL CLOCK
SERIAL DATA
(RESET IC)
IC6004
(MN1280R)
+5V
SERIAL CLOCK
SERIAL DATA
TO SERVO
(TUNER DATA MEMORY IC)
C3
C2
C1
PCLR Ⓗ
OUT
IC7502 (MN12261)
P12
P26
P00
P01
POWER FAILIAR DET
REG 6V
(RESET IC)
IC7504
(MN1280T)
QR7501
SPECIAL CH Ⓛ
P7402
12
STOP
EJECT
REW
FF
STILL
REC
A.DUB
PLAY/X2
INSERT
C.R.
C.RM
T.SET
LP/SP
CH UP
CH DN
CLOCK
PRO/ CHACK
NEXT/ FAST
TRACK UP
TRACK DN
ON UP
ON DN
OFF UP
OFF DN
N/P/F
VPS
CLEAR
P50
P51
P52
P53
P54
P55
P56
P57
P60
P61
P40
P41
P42
P43
P44
AV Ⓗ
VTR 12V
TO LUMINANCE & CHROMINANCE
P6001
10
SUB SW
SP Ⓛ / LP Ⓗ
TO SERVO/AUDIO
STOP / FF / REW
MOTOR VM DOWN
CAP QUICK Ⓗ
CAP ON/OFF/RESET Ⓗ
SLOW/STILL/STOP Ⓛ
CUE/REV
COS
CIS
HC
CCD
REC 12V
S. TAB Ⓛ
+12V
F. ERASE 12V
ROTARY ERASE Ⓗ
TO SERVO
OSC 1
OSC 2
X7501
TIMER OSC
4.19MHz
SEG 0
SEG16
A GRID F
A GRID 0
SEGMENT SIGNALS
GRID SIGNALS
VDD
X0
X1
IRQ
RESET Ⓛ
METER ON/OFF
P7506
4
P7506
6
R7595
C7571
(BACK-UP CAPACITOR)
D7501
REG 6V (FROM POWER)
32KHz
X7502
(FOR BACK UP)
IR RECIEVER C.B.A. (VEP06552A)
IC6701
(μPC1490HA)
VR6701
+5V
IC7503
(MN1280P)
REG 5V
CPU CLOCK
CPU DATA 2
CPU DATA 1
P7503 PACK
11 7
10 9
9 8
VPS PACK C.B.A. (VEP07538A)
IC7851
(MN158413VHM)
RESET Ⓛ
VDD
SBT
SBO
SB1
RESET Ⓛ
CLK
DATA IN
DATA OUT
RESET Ⓛ
VPS PACK
4
BACK-UP 5V
QR7851
QR7852
IC7852
(MN1280T)
SYS. 5V
VDD
RST Ⓛ
FROM DEMODULATOR
VIDEO SIGNAL
VPS PACK
2
SYS.5V
IC7801
(SAA4700)
VDD
RST
WHEN VPS SIGNAL DOES NOT COME TO IC7801-13 (ESPECIALLY OUTPUT SIG AT IC7801-3 IS KEPT TO LOW), THIS IC7851 GENERATES LOW SIG.
TAKT GENERATOR (PLL)
BIPHASE CODE TEST
START CODE TEST
SCHIFT REGISTER 40 BIT
TRANSMIT REGISTER BANK 5X8 BITS
DATA SLICING
PRE-SCALER
SEQUENCE CONTROL
ADDRESS DECODER
MULTIPLEXER
SYNCHRON PULSE SEPARATOR
CBB GENERATOR AND DECODER FOR LINE16
AUTOM RESET
TEST SIGNAL GENERATOR
I²C-BUS INTERFACE
DP7501 VSL0113
1GB
2GB
0GA
1GA
S1B
+10 7 4 2 0 2 4 7 10 20 30 40 -∞ dB
B12
B11
B2
B1
L
S2B
R
S3B
VTR
VPS
×2
OTR
REC
2GA
3GA
4GA
5GA
AV
EW
Po
M D
12345678
SP LP ON OFF
SU MO TU WE TH FR SA
REMAIN WRITE ERASE
COUNT
MRS
6GA
7GA
8GA
3.9ms
30Vp-p
GRID 0
GRID 1
GRID 2
GRID 3
GRID 4
GRID 5
GRID 6
GRID 7
GRID 8
GRID 9
GRID A
GRID B
GRID C
GRID D
GRID E
GRID F
QR7511
QR7510
QR7505
+5V
IC7505 (BA6810S)
B11
B1
B GRID1
B GRID2
METER LCH
METER RCH
FIX 1
FIX 2
METER LCH
P7502
3
METER RCH
P7502
2
FIX 1
P7502
6
FIX 2
P7502
11
(METER DRIVE)

3-3. LUMINANCE & CHROMINANCE BLOCK DIAGRAM



TO SERVO
Vss
TO COLOUR
Hss
FROM SERVO
ART V SYNC
IC301(VEFH03D)
L.P.F.
AGC
EE
VV
CLP
MUTE
AMP
FL301
LUMINANCE SIGNAL
4MHz
CLAMP
VIDEO SIGNAL
4.43 MHz
TO RF CONVERTER
VIDEO OUT
Q3610
BUFFER
FL3610
COMPENSATOR
IC3602 (BA7004)
TEST SIG
500K OSC
TEST (H)
D3608
X3601
TEST SIGNAL PACK C.B.A. (VEP03610A)
Q3001
AMP
VIDEO OUT
TP3002
VIDEO IN
IC3901 (TA7348P)
FROM TUNER
INPUT/OUTPUT PACK C.B.A. (VEP04253A)
VR3004
REG 5V
PICTURE VR
EDIT SW
OFF
ON
EDIT LNC
LOGIC
EE-VV DETAIL
FROM AUDIO & SYSTEM CTL
EE Ⓗ
DET
S-SEP
PULSE DELAY
LIM
DETAIL N.L.E.
NL DE
MIX
PIC CONT
NC
NLE
MAIN EMPH
W/D CLIP
DEV
FM MOD
MAIN EMPHASIS
100K 500K 2M
NL EMPHASIS
GAIN
FREQUENCY
SYNC TIP
WHITE LEVEL
FM MODURATION
2MHz PEAK
R312
R313
C315
C316
L304
L305
QR301
QR302
QR303
SP Ⓗ
LP Ⓗ
C349
R335
FL302
L.P.F.
FM DEM
LIM
H.P.F.
DOC PULSE GEN
ENV DET
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
REG 6V
Q3002 (PB ON)
QR3001
E・REC
H.SW PULSE
5Vp-p 25Hz
Q304
BUFFER
FL801
5.06MHz B.P.F.
VR803
PB CHROMA
1.6MHz L.P.F.
IC801 (VEFH04F)
DL802
DELAY
COMB AMP
PB OUT AMP KILL SW
ACC DET
ACC
MAIN B.M
BURST UP
REC OUT AMP KILL SW
0.16Vp-p 5.06MHz
4.43MHz BPF
VIDEO IN
627KHz
L806 L809 C815 C818 C819
627KHz L.P.F
VCXO
APC PC
SUB BM
KILL DET
1/8
5.02MHz VCO
1/321
FREQ. DET
AFC COMP
ROTARY
DIGITAL M.M
MMV
PB AMP
REC CHROMA
RF CHROMA
627K 3.8M 4.8M Hz
SECAM Ⓗ
X801
FL851
4.4MHz TRAP
IC851 (BA7025L)
SW
SECAM DET
E REC Ⓗ
DDR SECAM PACK C.B.A. (VEP03452B)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627A)
FROM SERVO
ROTARY SW
FROM LUMINANCE
Hss IN
HSS IN
TO SERVO
ENVE. SELECT
REC.Y
RF.Y
L3002,3 C3013,14
627KHz TRAP
3.8M 4.8MHz
Q3003, Q3011
FREQUENCY CONPENSATOR
C3049
C3050
L3020
C3016
C3010
L3006
VR3013
LP Q ADJ
VR3012
SP Q ADJ
R3009
QR3006
QR3012
Q3005
AMP
TP3001
PHASE CONPENSATOR
C3004, Q3005, L3007
P3001-P501
REC-C
VR502
VR501
REC-Y
TRICK(L)
IC501 (AN3334K)
MIX
AMP
SW
SW LOGIC
TP508
TP507
1ST & 2ND AMP
HEAD SW
H SW
AGC DET
CHROMA AMP
PEAKING AMP
AGC AMP
ENVE SELECT
HEAD AMP OUTPUT
RF SIGNAL 120mVp-p
Q501
P502
HEAD AMP C.B.A. (VEP05134B)
R (4


IC301(VEFH03D)
L.P.F.
AMP
FL302
L.P.F.
FM DEM
LIM
LIM
H.P.F.
L.P.F.
AGC
EE
VV
CLP
MUTE
AMP
AMP
AMP
R312
R313
2MHz PEAK
C315
C316
L304
L305
QR301
QR302
QR303
SP Ⓗ
LP Ⓗ
C349
R335
DOC PULSE GEN
ENV DET
MAIN EMPHASIS
100K 500K 2M Hz
HEAD AMP OUTPUT
RF SIGNAL 0.5Vp-p
DET
S・SEP
PULSE DELAY
NLE
MAIN EMPH
DEV
FM MOD
LIM
DETAIL N.L.E.
NL DE
CLP
LIM
W/D CLIP
CLAMP
MIX
PIC CONT
NC
L.P.F.
LIM
H.P.F.
GAIN
FREQUENCY
SYNC TIP
WHITE LEVEL
FM MODURATION
NL EMPHASIS
EDIT LNC
LOGIC
EE-VV DETAIL
Q304
BUFFER
REG 6V
Q3002 (PB ON)
QR3001
P.B Ⓛ
FROM SYSTEM CTL
E・REC Ⓗ
H.SW PULSE
5Vp-p 25Hz
HEAD SW
FROM SERVO
HEAD AMP SW
FROM SERVO
REG 5V
DL801
1H DELAY
CHROMA PHASE
CHROMA BALANCE
VR801
CHROMA PHASE
VR802
CHROMA BALANCE
H.SS FROM IC801-32
EDIT Ⓗ FROM IC301-31
+B
VR301
Y-LEVEL
B2
LIM1
LIM2
INV.
EDIT
-9.5dB
CNR
EQ1
EQ2
NORM
DOC
EQ
A3
AMP
EE
VV
1-K / 1+K
DO PULSE FROM IC301-24
A2
K
A1
B1
X
LIM
LPF
COR DET
fc ≒ 220KHz
IC302 (AN3495K)
IC303 (MSM6965-3RS)
CLAMP
CCD
AMP
SCHMITT
(1H DELAY LINE)
Q303
BUFFER
FL303
L.P.F
VR302
Y-BAL
X301
IC801 (VEFH04F)
REC.Y
RF.Y
REC CHROMA
627K 3.8M 4.8M Hz
PB AMP
RF CHROMA
AFC COMP
DET
DIGITAL M.M
MMV
HSS IN
TO SERVO
ENVE. SELECT
L3002,3 C3013,14
627KHz TRAP
3.8M 4.8MHz
Q3003, Q3011
FREQUENCY COMPENSATOR
C3049
C3050
C3010
L3020
C3016
L3006
VR3013 LP Q ADJ
VR3012 SP Q ADJ
R3009
QR3006
QR3012
Q3005
AMP
TP3001
PHASE CONPENSATOR
C3004, Q3005, L3007
P3001-P501
REC-C
VR502
VR501
REC-Y
TRICK(L)
IC501 (AN3334K)
MIX
AMP
SW
SW LOGIC
TP508
TP507
1ST & 2ND AMP
HEAD SW
H SW
AGC DET
CHROMA AMP
PEAKING AMP
AGC AMP
ENVE SELECT
Q501
AMP
HEAD AMP OUTPUT
RF SIGNAL 120mVp-p
627K 3.8M 4.8M(Hz)
HEAD AMP C.B.A. (VEP05134B)
P502
SP VIDEO HEAD L
SP VIDEO HEAD R
LP VIDEO HEAD R
LP VIDEO HEAD L
620±5μm
R (35μm)
L (49μm)
R (49μm)
L (35μm)

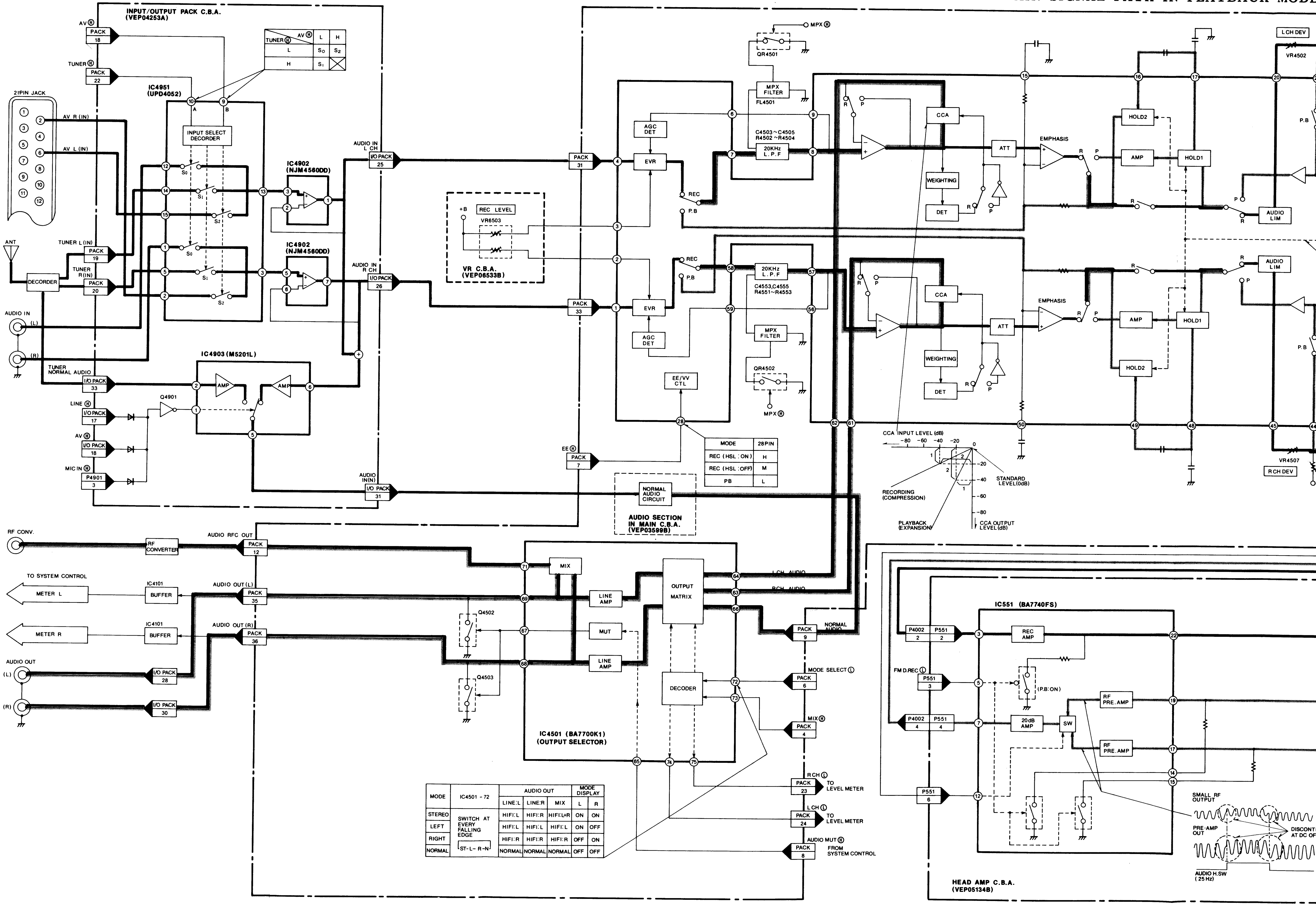
MAIN SIGNAL PATH IN REC MODE
MAIN SIGNAL PATH IN PLAYBACK MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE
5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE

Next Page:
Hi-Fi AUDIO Section

3-4. Hi-Fi AUDIO BLOCK DIAGRAM

MAIN SIGNAL PATH IN REC MODE

MAIN SIGNAL PATH IN PLAYBACK MODE

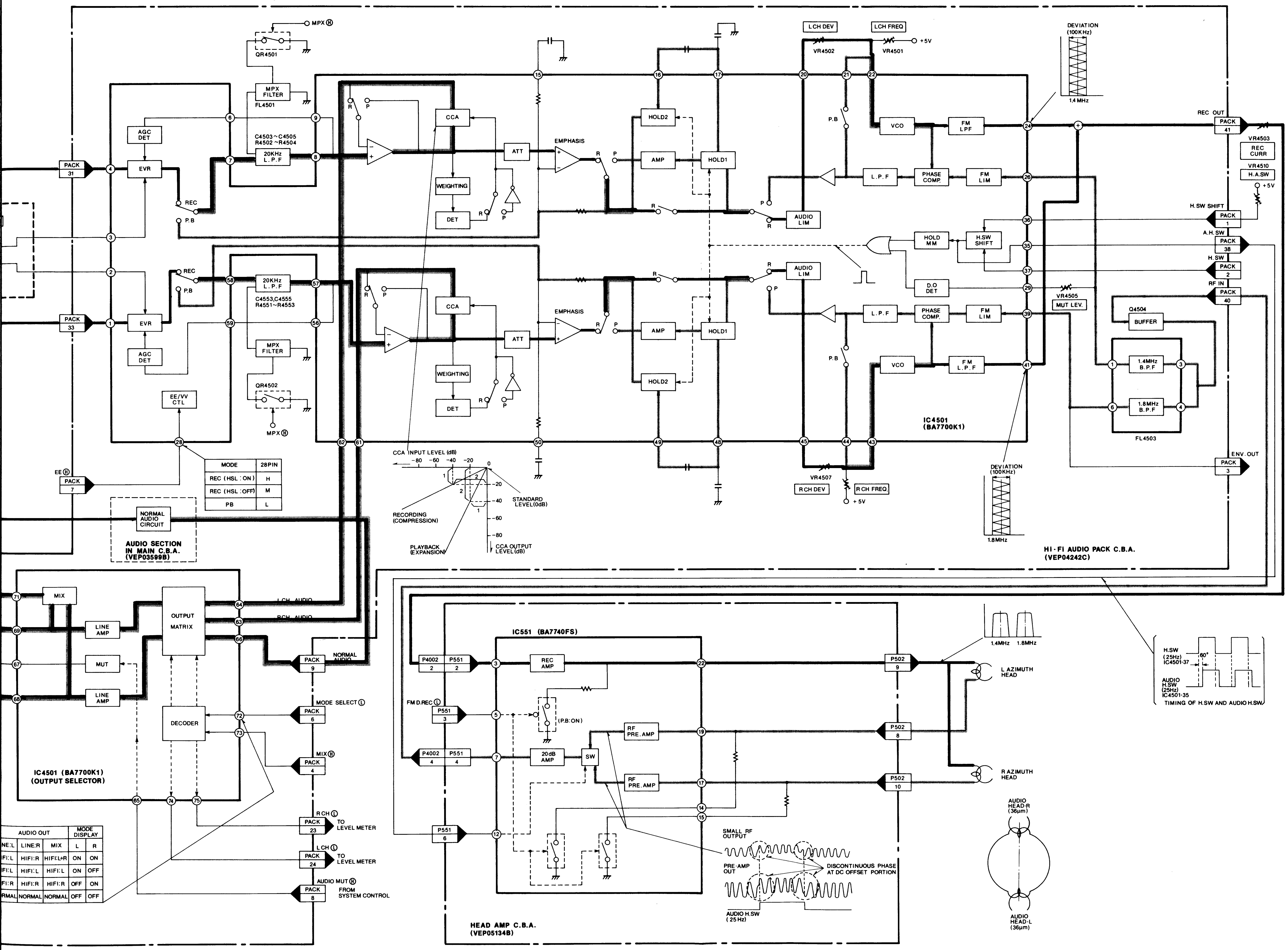

INPUT/OUTPUT PACK C.B.A. (VEP04253A)
AV Ⓗ
PACK 18
TUNER Ⓗ
PACK 22
21PIN JACK
AV R (IN)
AV L (IN)
ANT
DECORDER
TUNER L (IN)
PACK 19
TUNER R (IN)
PACK 20
AUDIO IN
(L)
(R)
TUNER NORMAL AUDIO
I/O PACK 33
LINE Ⓗ
I/O PACK 17
AV Ⓗ
I/O PACK 18
MIC IN Ⓗ
P4901 3
IC4951 (UPD4052)
INPUT SELECT DECORDER
IC4902 (NJM4560DD)
IC4903 (M5201L)
AMP
Q4901
AUDIO IN L CH
I/O PACK 25
AUDIO IN R CH
I/O PACK 26
AUDIO IN (N)
I/O PACK 31
VR C.B.A. (VEP06533B)
+B
REC LEVEL
VR6503
PACK 31
PACK 33
EVR
AGC DET
REC
P.B
EE/VV CTL
EE Ⓗ
PACK 7
MPX Ⓗ
QR4501
MPX FILTER
FL4501
C4503~C4505 R4502~R4504
20KHz L.P.F
C4553,C4555 R4551~R4553
QR4502
NORMAL AUDIO CIRCUIT
AUDIO SECTION IN MAIN C.B.A. (VEP03599B)
CCA
WEIGHTING
DET
ATT
EMPHASIS
AMP
HOLD1
HOLD2
AUDIO LIM
LCH DEV
VR4502
RCH DEV
VR4507
CCA INPUT LEVEL (dB)
STANDARD LEVEL(0dB)
RECORDING (COMPRESSION)
PLAYBACK EXPANSION
CCA OUTPUT LEVEL (dB)
RF CONV.
RF CONVERTER
AUDIO RFC OUT
PACK 12
TO SYSTEM CONTROL
METER L
METER R
IC4101 BUFFER
AUDIO OUT (L)
PACK 35
AUDIO OUT (R)
PACK 36
AUDIO OUT
I/O PACK 28
I/O PACK 30
Q4502
Q4503
MIX
LINE AMP
MUT
OUTPUT MATRIX
DECODER
IC4501 (BA7700K1) (OUTPUT SELECTOR)
LCH AUDIO
RCH AUDIO
NORMAL AUDIO
PACK 9
MODE SELECT Ⓛ
PACK 6
MIX Ⓗ
PACK 4
RCH Ⓛ
PACK 23
TO LEVEL METER
LCH Ⓛ
PACK 24
TO LEVEL METER
AUDIO MUT Ⓗ
PACK 8
FROM SYSTEM CONTROL
IC551 (BA7740FS)
P4002 2
P551 2
FM D.REC Ⓛ
P551 3
P4002 4
P551 4
P551 6
REC AMP
(P.B:ON)
20dB AMP
SW
RF PRE.AMP
SMALL RF OUTPUT
PRE-AMP OUT
AUDIO H.SW (25Hz)
HEAD AMP C.B.A. (VEP05134B)

	AV Ⓗ L	H
TUNER Ⓗ L	S₀	S₂
H	S₁	☒

MODE	28PIN
REC (HSL : ON)	H
REC (HSL : OFF)	M
PB	L

MODE	IC4501 - 72	AUDIO OUT			MODE DISPLAY	
		LINE:L	LINE:R	MIX	L	R
STEREO	SWITCH AT EVERY FALLING EDGE ST-L-R-N	HIFI:L	HIFI:R	HIFI:L+R	ON	ON
LEFT		HIFI:L	HIFI:L	HIFI:L	ON	OFF
RIGHT		HIFI:R	HIFI:R	HIFI:R	OFF	ON
NORMAL		NORMAL	NORMAL	NORMAL	OFF	OFF

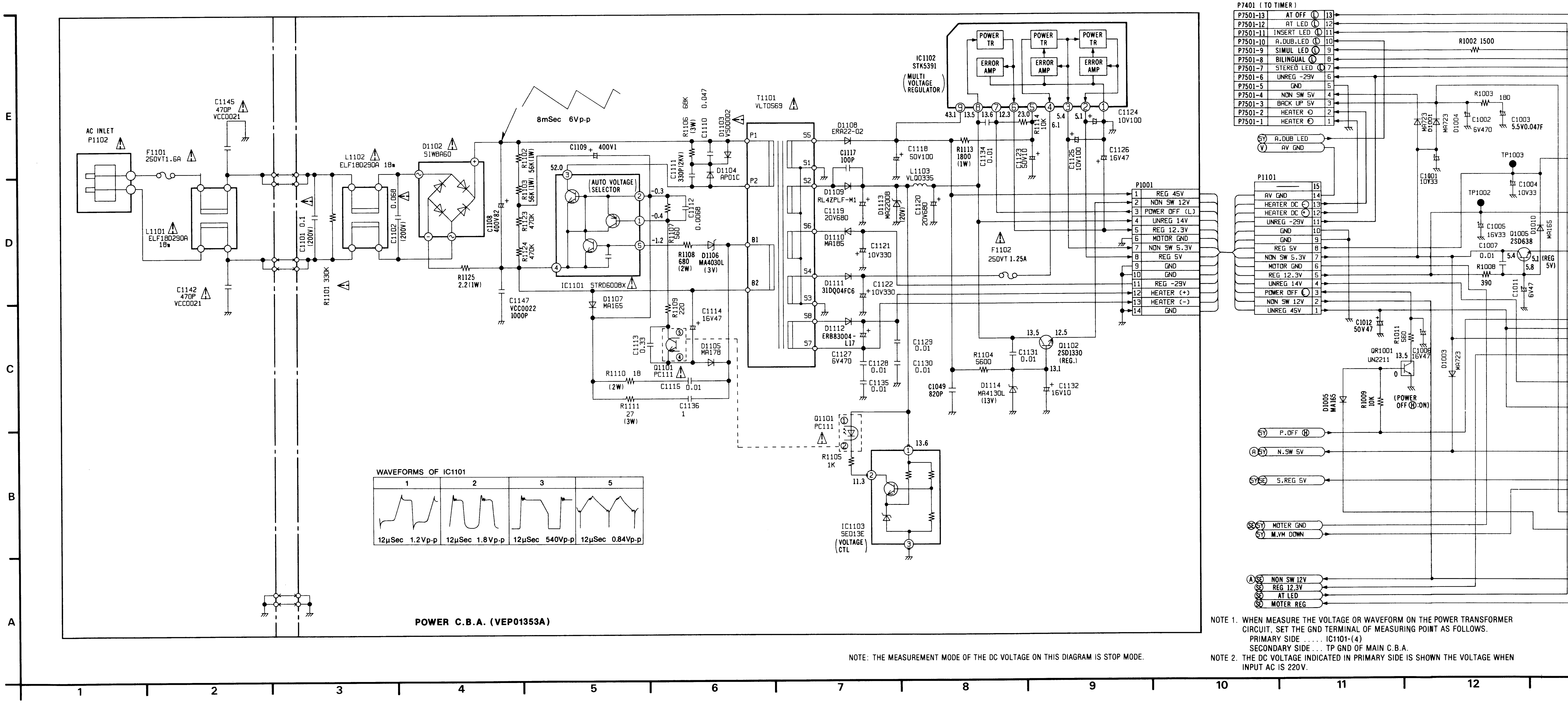
MAIN SIGNAL PATH IN REC MODE   MAIN SIGNAL PATH IN PLAYBACK MODE


MPX Ⓗ
QR4501
MPX FILTER
FL4501
AGC DET
EVR
C4503~C4505
R4502~R4504
20KHz L.P.F
PACK 31
REC
P.B
PACK 33
C4553,C4555
R4551~R4553
MPX FILTER
QR4502
MPX Ⓗ
EE/VV CTL
EE Ⓗ
PACK 7
NORMAL AUDIO CIRCUIT
AUDIO SECTION IN MAIN C.B.A. (VEP03599B)
CCA
WEIGHTING
DET
ATT
EMPHASIS
HOLD2
AMP
HOLD1
AUDIO LIM
LCH DEV
LCH FREQ
VR4502
VR4501
+5V
VCO
FM LPF
PHASE COMP.
FM LIM
L.P.F
HOLD MM
H.SW SHIFT
D.O DET
DEVIATION (100KHz)
1.4 MHz
REC OUT
PACK 41
VR4503
REC CURR
VR4510
H.A.SW
H.SW SHIFT
PACK 1
A.H.SW
PACK 38
H.SW
PACK 2
RF IN
PACK 40
VR4505
MUT LEV.
Q4504
BUFFER
1.4MHz B.P.F
1.8MHz B.P.F
FL4503
ENV OUT
PACK 3
IC4501 (BA7700K1)
VR4507
RCH DEV
RCH FREQ.
DEVIATION (100KHz)
1.8MHz
HI-FI AUDIO PACK C.B.A. (VEP04242C)
CCA INPUT LEVEL (dB)
-80 -60 -40 -20 0
-20 -40 -60 -80
STANDARD LEVEL(0dB)
RECORDING (COMPRESSION)
PLAYBACK (EXPANSION)
CCA OUTPUT LEVEL(dB)
MIX
LINE AMP
MUT
OUTPUT MATRIX
DECODER
LCH AUDIO
RCH AUDIO
NORMAL AUDIO
PACK 9
MODE SELECT Ⓛ
PACK 6
MIX Ⓗ
PACK 4
IC4501 (BA7700K1) (OUTPUT SELECTOR)
RCH Ⓛ
PACK 23
TO LEVEL METER
LCH Ⓛ
PACK 24
TO LEVEL METER
AUDIO MUT Ⓗ
PACK 8
FROM SYSTEM CONTROL
IC551 (BA7740FS)
P4002 P551
REC AMP
FM D.REC Ⓛ
(P.B:ON)
20dB AMP
SW
RF PRE.AMP
P502
1.4MHz 1.8MHz
L AZIMUTH HEAD
R AZIMUTH HEAD
SMALL RF OUTPUT
PRE-AMP OUT
DISCONTINUOUS PHASE AT DC OFFSET PORTION
AUDIO H.SW (25Hz)
HEAD AMP C.B.A. (VEP05134B)
H.SW (25Hz) IC4501-37
60°
AUDIO H.SW (25Hz) IC4501-35
TIMING OF H.SW AND AUDIO H.SW
AUDIO HEAD-R (36μm)
AUDIO HEAD-L (36μm)

MODE	28PIN
REC (HSL : ON)	H
REC (HSL : OFF)	M
PB	L

AUDIO OUT			MODE DISPLAY	
NE:L	LINE:R	MIX	L	R
FI:L	HIFI:R	HIFI:L+R	ON	ON
FI:L	HIFI:L	HIFI:L	ON	OFF
FI:R	HIFI:R	HIFI:R	OFF	ON
RMAL	NORMAL	NORMAL	OFF	OFF

3-5. POWER SCHEMATIC DIAGRAM

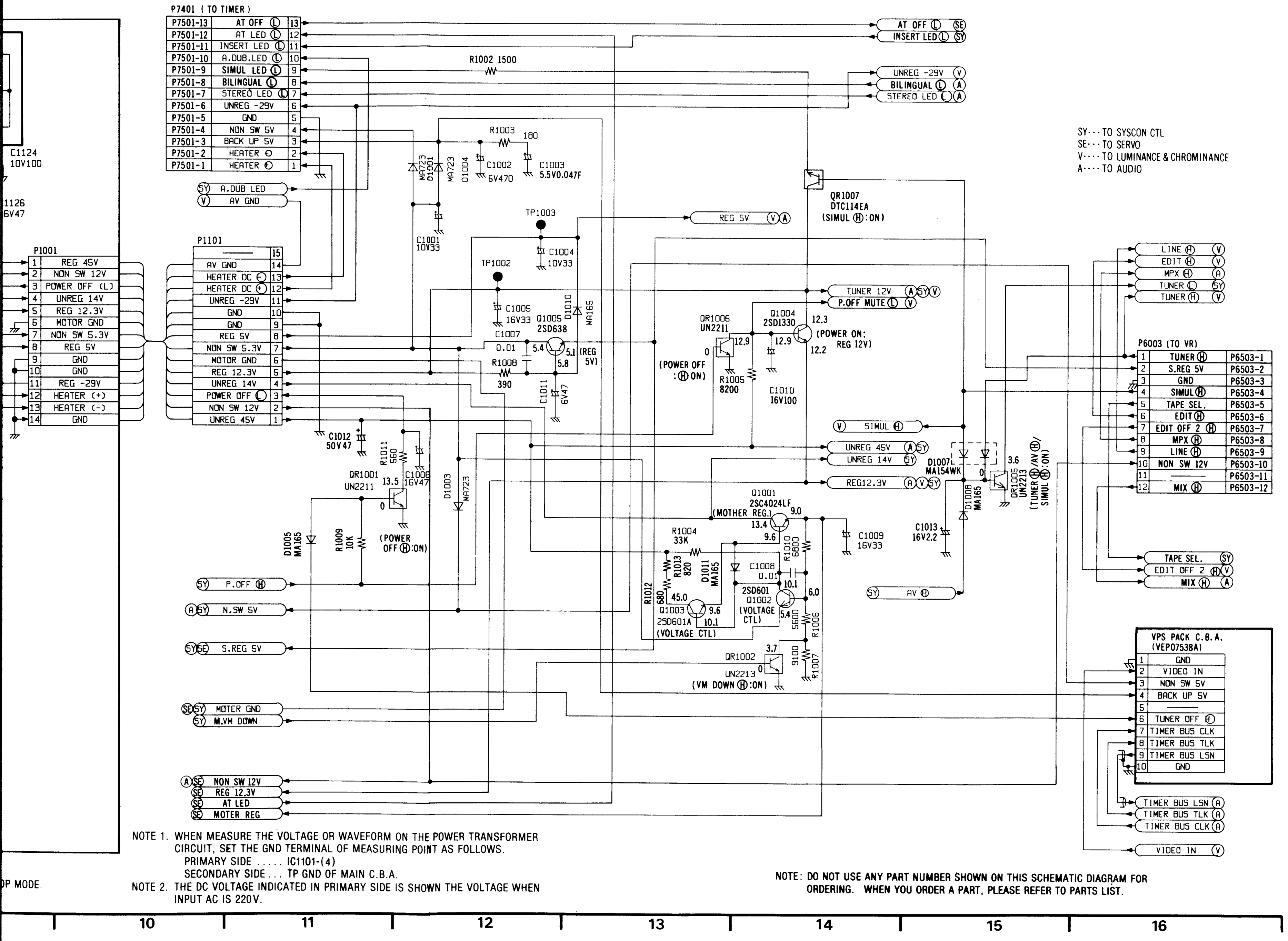

AC INLET
P1102
F1101
250VT1.6A
C1145
470P
VCC0021
C1142
470P
VCC0021
L1101
ELF18D290A
18m
C1101 0.1 (200V)
R1101 330K
L1102
ELF18D290A 18m
C1102 0.068 (200V)
D1102
S1WBA60
R1125
2.2(1W)
C1147
VCC0022
1000P
8mSec 6Vp-p
C1108 400V82
R1102 56K(1W)
R1103 56K(1W)
R1123 470K
R1124 470K
C1109 400V1
AUTO VOLTAGE SELECTOR
IC1101 STRD6008X
D1107
MA165
R1106 68K (3W)
C1110 0.047
D1103 V500002
C1111 330P(2KV)
C1112 0.0068
D1104
AP01C
R1107 560
R1108 680 (2W)
D1106 MA4030L (3V)
R1109 220
C1114 16V47
C1113 0.33
D1105 MA178
Q1101 PC111
R1110 18 (2W)
C1115 0.01
R1111 27 (3W)
C1136 1
T1101 VLT0569
P1
P2
B1
B2
S1
S2
S3
S4
S5
S6
S7
S8
D1108 ERA22-02
C1117 100P
D1109 RL4ZPLF-M1
C1119 20V680
D1110 MA165
C1121 10V330
D1111 31DQ04FC6
C1122 10V330
D1112 ERB83004-L17
C1127 6V470
C1128 0.01
C1135 0.01
C1129 0.01
C1130 0.01
D1113 MA22008 (20V)
C1118 50V100
L1103 VL00335
C1120 20V680
IC1102 STK5391 (MULTI VOLTAGE REGULATOR)
POWER TR
ERROR AMP
R1113 1800 (1W)
C1134 0.01
C1123 50V10
R1114 10K
C1125 10V100
C1124 10V100
C1126 16V47
F1102 250VT 1.25A
R1104 5600
C1131 0.01
Q1102 2SD1330 (REG.)
D1114 MA4130L (13V)
C1049 820P
C1132 16V10
Q1101 PC111
R1105 1K
IC1103 SE013E (VOLTAGE CTL)
P1001
1 REG 45V
2 NON SW 12V
3 POWER OFF (L)
4 UNREG 14V
5 REG 12.3V
6 MOTOR GND
7 NON SW 5.3V
8 REG 5V
9 GND
10 GND
11 REG -29V
12 HEATER (+)
13 HEATER (-)
14 GND
P7401 (TO TIMER)
P7501-13 AT OFF 13
P7501-12 AT LED 12
P7501-11 INSERT LED 11
P7501-10 A.DUB.LED 10
P7501-9 SIMUL LED 9
P7501-8 BILINGUAL 8
P7501-7 STEREO LED 7
P7501-6 UNREG -29V 6
P7501-5 GND 5
P7501-4 NON SW 5V 4
P7501-3 BACK UP 5V 3
P7501-2 HEATER 2
P7501-1 HEATER 1
P1101
AV GND 14
HEATER DC 13
HEATER DC 12
UNREG -29V 11
GND 10
GND 9
REG 5V 8
NON SW 5.3V 7
MOTOR GND 6
REG 12.3V 5
UNREG 14V 4
POWER OFF 3
NON SW 12V 2
UNREG 45V 1
A.DUB LED
AV GND
R1002 1500
R1003 180
C1002 6V470
C1003 5.5V0.047F
D1004 MA723
D1001 MA723
C1001 10V33
TP1003
TP1002
C1004 10V33
C1005 16V33
D1005
Q1010 MA165
2SD638
C1007 0.01
R1008 390
C1011 6V47
C1012 50V47
QR1001 UN2211
R1011 560
C1006 16V47
D1003 MA723
D1005 MA165
R1009 10K
(POWER OFF H:ON)
P.OFF
N.SW 5V
S.REG 5V
MOTER GND
M.VM DOWN
NON SW 12V
REG 12.3V
AT LED
MOTER REG
WAVEFORMS OF IC1101
1
2
3
5
12µSec 1.2Vp-p
12µSec 1.8Vp-p
12µSec 540Vp-p
12µSec 0.84Vp-p
POWER C.B.A. (VEP01353A)
A
B
C
D
E
1
2
3
4
5
6
7
8
9
10
11
12

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ..... IC1101-(4)
SECONDARY SIDE ... TP GND OF MAIN C.B.A.

NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 220V.

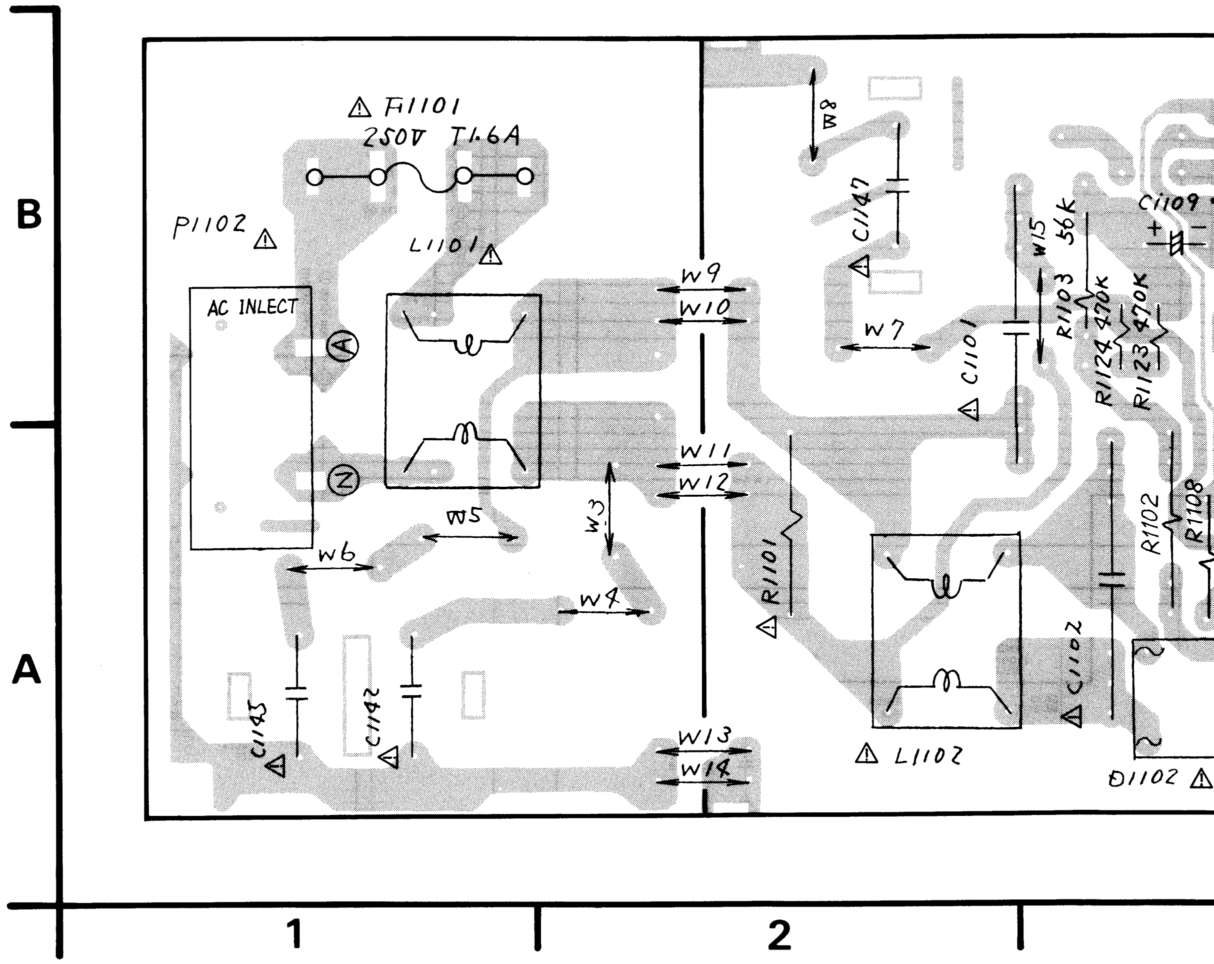
3-6. POWER C.B.A. (VEP01353A)


P7401 (TO TIMER)
P7501-13 AT OFF Ⓛ 13
P7501-12 AT LED Ⓛ 12
P7501-11 INSERT LED Ⓛ 11
P7501-10 A.DUB.LED Ⓛ 10
P7501-9 SIMUL LED Ⓛ 9
P7501-8 BILINGUAL Ⓛ 8
P7501-7 STEREO LED Ⓛ 7
P7501-6 UNREG -29V 6
P7501-5 GND 5
P7501-4 NON SW 5V 4
P7501-3 BACK UP 5V 3
P7501-2 HEATER ⊖ 2
P7501-1 HEATER ⊕ 1
AT OFF Ⓛ SE
INSERT LED Ⓛ SY
R1002 1500
UNREG -29V V
BILINGUAL Ⓛ A
STEREO LED Ⓛ A
SY···TO SYSCON CTL
SE···TO SERVO
V····TO LUMINANCE & CHROMINANCE
A····TO AUDIO
C1124 10V100
C1126 6V47
R1003 180
C1002 6V470
C1003 5.5V0.047F
D1001 MA723
D1004 MA723
C1001 10V33
TP1003
REG 5V V A
QR1007 DTC114EA (SIMUL Ⓗ:ON)
SY A.DUB LED
V AV GND
P1001
1 REG 45V
2 NON SW 12V
3 POWER OFF (L)
4 UNREG 14V
5 REG 12.3V
6 MOTOR GND
7 NON SW 5.3V
8 REG 5V
9 GND
10 GND
11 REG -29V
12 HEATER (+)
13 HEATER (-)
14 GND
P1101
AV GND 14
HEATER DC ⊖ 13
HEATER DC ⊕ 12
UNREG -29V 11
GND 10
GND 9
REG 5V 8
NON SW 5.3V 7
MOTOR GND 6
REG 12.3V 5
UNREG 14V 4
POWER OFF Ⓛ 3
NON SW 12V 2
UNREG 45V 1
TP1002
C1004 10V33
C1005 16V33
Q1005 2SD638
D1010 MA165
C1007 0.01
R1008 390
C1011 6V47
5.4 5.1 5.8 (REG 5V)
QR1006 UN2211
Q1004 2SD1330
12.3 12.9 12.2
(POWER ON: REG 12V)
(POWER OFF :Ⓗ ON)
R1005 8200
C1010 16V100
TUNER 12V A SY V
P.OFF MUTE Ⓛ V
LINE Ⓗ V
EDIT Ⓗ V
MPX Ⓗ A
TUNER Ⓛ SY
TUNER Ⓗ V
P6003 (TO VR)
1 TUNER Ⓗ P6503-1
2 S.REG 5V P6503-2
3 GND P6503-3
4 SIMUL Ⓗ P6503-4
5 TAPE SEL. P6503-5
6 EDIT Ⓗ P6503-6
7 EDIT OFF 2 Ⓗ P6503-7
8 MPX Ⓗ P6503-8
9 LINE Ⓗ P6503-9
10 NON SW 12V P6503-10
11 P6503-11
12 MIX Ⓗ P6503-12
V SIMUL Ⓗ
UNREG 45V A SY
UNREG 14V SY
REG12.3V A V SY
D1007 MA154WK
QR1005 UN2213 (TUNER Ⓗ/AV Ⓗ/SIMUL Ⓗ:ON)
D1008 MA165
C1013 16V2.2
C1012 50V47
R1011 560
C1006 16V47
QR1001 UN2211 13.5
(POWER OFF Ⓗ:ON)
D1005 MA165
R1009 10K
D1003 MA723
Q1001 2SC4024LF (MOTHER REG.)
13.4 9.0 9.6
C1009 16V33
R1004 33K
R1013 820
D1011 MA165
C1008 0.01
R1010 6800
2SD601 Q1002 (VOLTAGE CTL)
10.1 6.0 5.4
R1012 680
45.0
Q1003 2SD601A 9.6 10.1 (VOLTAGE CTL)
5600 R1006
QR1002 UN2213 (VM DOWN Ⓗ:ON)
3.7 9100 R1007
TAPE SEL. SY
EDIT OFF 2 Ⓗ V
MIX Ⓗ A
SY AV Ⓗ
SY P.OFF Ⓗ
A SY N.SW 5V
SY SE S.REG 5V
SE SY MOTER GND
SY M.VM DOWN
VPS PACK C.B.A. (VEP07538A)
1 GND
2 VIDEO IN
3 NON SW 5V
4 BACK UP 5V
5
6 TUNER OFF Ⓛ
7 TIMER BUS CLK
8 TIMER BUS TLK
9 TIMER BUS LSN
10 GND
TIMER BUS LSN A
TIMER BUS TLK A
TIMER BUS CLK A
VIDEO IN V
A SE NON SW 12V
SE REG 12.3V
SE AT LED
SE MOTER REG
P MODE.
10
11
12
13
14
15
16

NOTE 1. WHEN MEASURE THE VOLTAGE OR WAVEFORM ON THE POWER TRANSFORMER CIRCUIT, SET THE GND TERMINAL OF MEASURING POINT AS FOLLOWS.
PRIMARY SIDE ..... IC1101-(4)
SECONDARY SIDE ... TP GND OF MAIN C.B.A.

NOTE 2. THE DC VOLTAGE INDICATED IN PRIMARY SIDE IS SHOWN THE VOLTAGE WHEN INPUT AC IS 220V.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

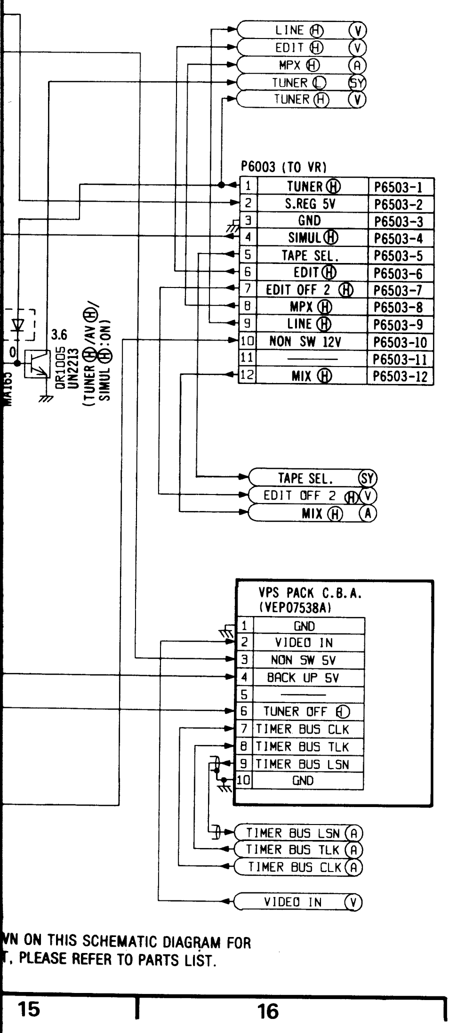

B
A
1
2
⚠ F1101
250V T1.6A
P1102 ⚠
L1101 ⚠
AC INLECT
A
N
W8
C1147
W9
W10
W7
C1101
W15 56K
R1103 470K
R1124 470K
R1123
C1109
W11
W12
W5
W3
W6
W4
R1101
R1102
R1108
C1102
C1145
C1142
W13
W14
⚠ L1102
D1102 ⚠

3-6. POWER C.B.A. (VEP01353A)

POWER C.B.A.	
Transistor	
Q1101 Q1102	B-4 B-5
Integrated Circuit	
IC1101 IC1102 IC1103	B-3 A-5 B-4
Connector	
P1101 P1102	B-5 B-1

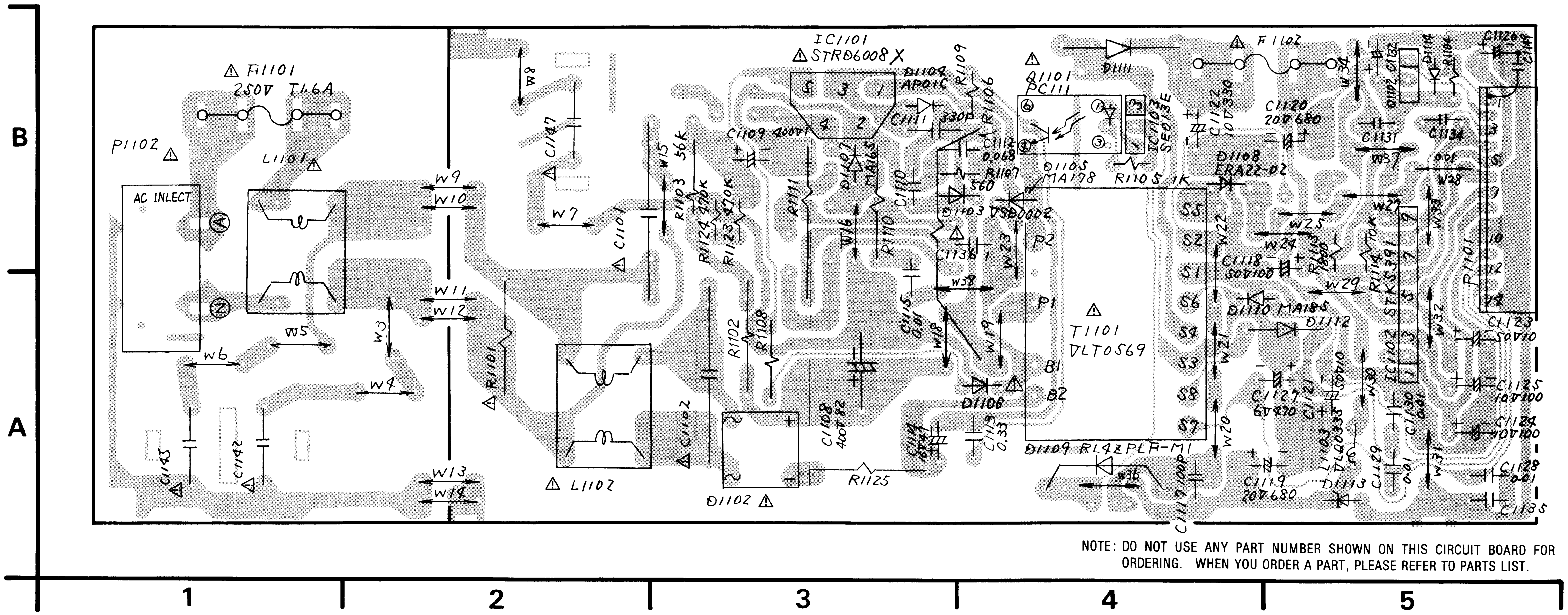
ADDRESS INFORMATION

SY···TO SYSCON CTL
SE···TO SERVO
V····TO LUMINANCE & CHROMINANCE
A····TO AUDIO



LINE Ⓗ Ⓥ
EDIT Ⓗ Ⓥ
MPX Ⓗ Ⓐ
TUNER Ⓛ Ⓢⓨ
TUNER Ⓗ Ⓥ
P6003 (TO VR)
1 TUNER Ⓗ P6503-1
2 S.REG 5V P6503-2
3 GND P6503-3
4 SIMUL Ⓗ P6503-4
5 TAPE SEL. P6503-5
6 EDIT Ⓗ P6503-6
7 EDIT OFF 2 Ⓗ P6503-7
8 MPX Ⓗ P6503-8
9 LINE Ⓗ P6503-9
10 NON SW 12V P6503-10
11 P6503-11
12 MIX Ⓗ P6503-12
3.6
UN2213
(TUNER Ⓗ/AV Ⓗ/ SIMUL Ⓗ:ON)
TAPE SEL. Ⓢⓨ
EDIT OFF 2 Ⓗ Ⓥ
MIX Ⓗ Ⓐ
VPS PACK C.B.A. (VEP07538A)
1 GND
2 VIDEO IN
3 NON SW 5V
4 BACK UP 5V
5 ———
6 TUNER OFF Ⓔ
7 TIMER BUS CLK
8 TIMER BUS TLK
9 TIMER BUS LSN
10 GND
TIMER BUS LSN Ⓐ
TIMER BUS TLK Ⓐ
TIMER BUS CLK Ⓐ
VIDEO IN Ⓥ
15
16

N ON THIS SCHEMATIC DIAGRAM FOR
T. PLEASE REFER TO PARTS LIST.

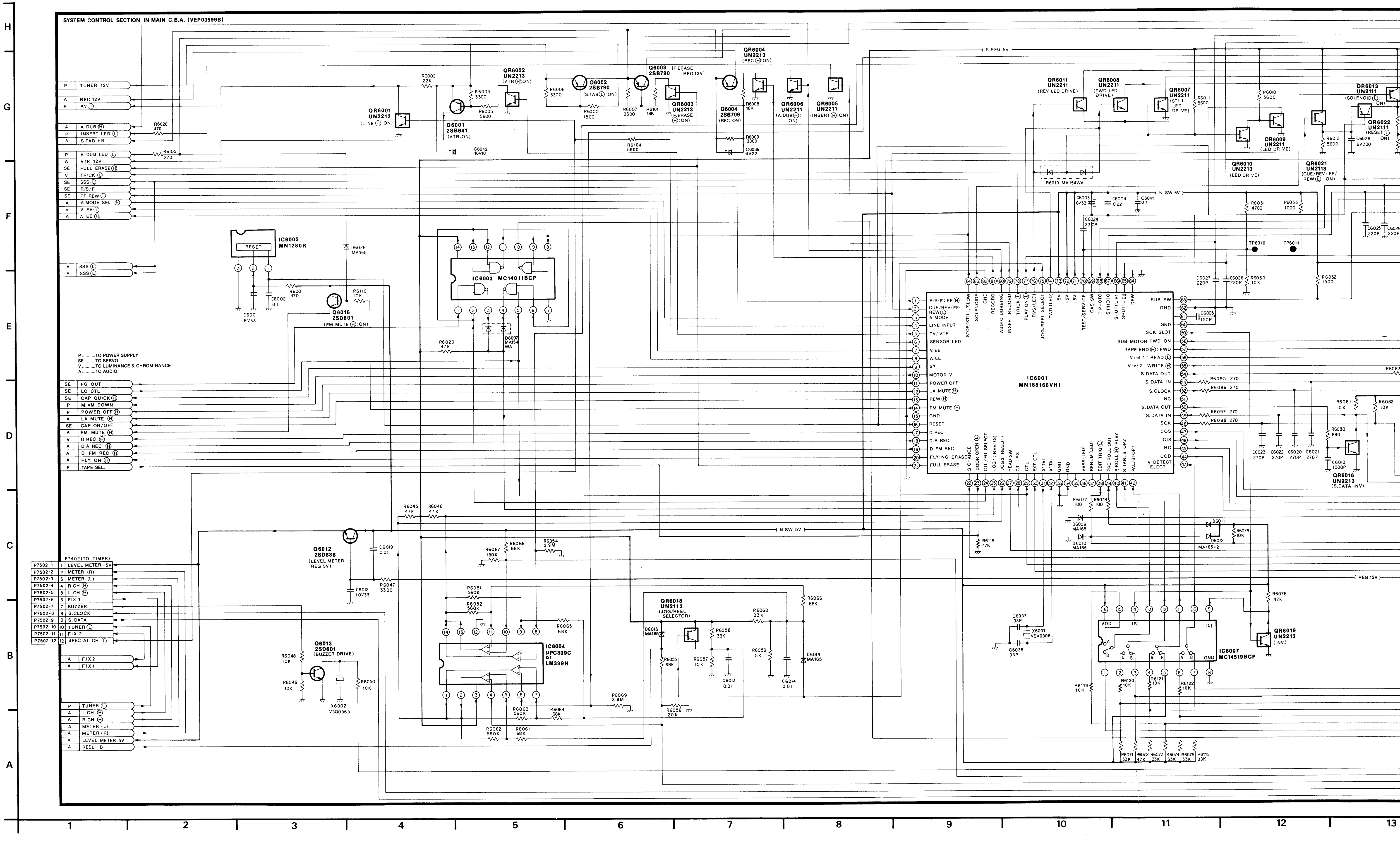


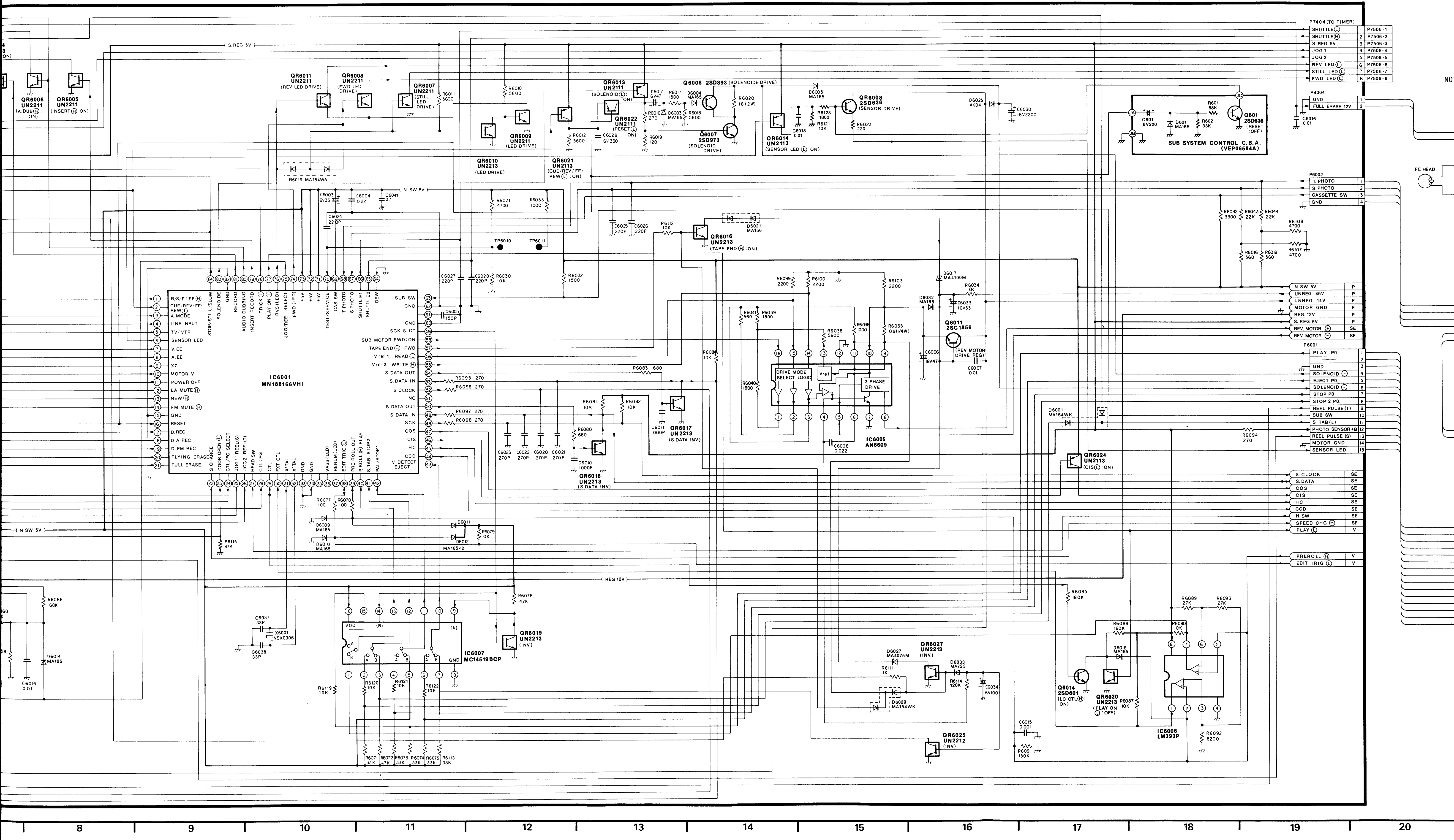
B
A
1
2
3
4
5
⚠ F1101 250V T1.6A
P1102 ⚠
AC INLECT
Ⓐ
Ⓝ
L1101 ⚠
W5
W6
W3
W4
⚠ C1145
⚠ C1142
W8
W9
W10
W11
W12
W13
W14
W7
⚠ C1147
⚠ C1101
⚠ R1101
⚠ C1102
⚠ L1102
W15
R1103 56K
R1124 470K
R1123 470K
R1111
R1102
R1108
C1108 400V82
D1102 ⚠
R1125
IC1101 ⚠ STR D6008X
D1104 APO1C
C1109 400V1
W16
D1107 MA165
R1110
C1110
R1109
R1106
C1111 330P
C1112 0.068
R1107 560
D1103 VSD0002
⚠ C1136
W23
W38
C1115 0.01
W18
W19
C1114 16V47
C1113 0.33
D1106 ⚠
⚠ Q1101 PC111
D1111
IC1103 SE013E
C1122 10V330
D1105 MA178
R1105 1K
P2
P1
B1
B2
⚠ T1101 VLT0569
S5
S2
S1
S6
S4
S3
S8
S7
D1109 RL4Z PLA-M1
W36
C1117 100P
W22
W21
W20
⚠ F1102
C1120 20V680
D1108 ERA22-02
C1118 50V100
W25
W24
R1113 1800
R1114 10K
W29
D1110 MA185
D1112
C1127 6V470
C1121 SOV10
L1103 VLQ0335
C1119 20V680
D1113
C1129 0.01
C1130 0.01
IC1102 STK5391
W30
W31
W32
W33
W27
W37
W28
C1131
C1134 0.01
W34
Q1102 C1132
D1114
R1104
C1126
C1141
P1101
C1123 50V10
C1125 10V100
C1124 10V100
C1128 0.01
C1135

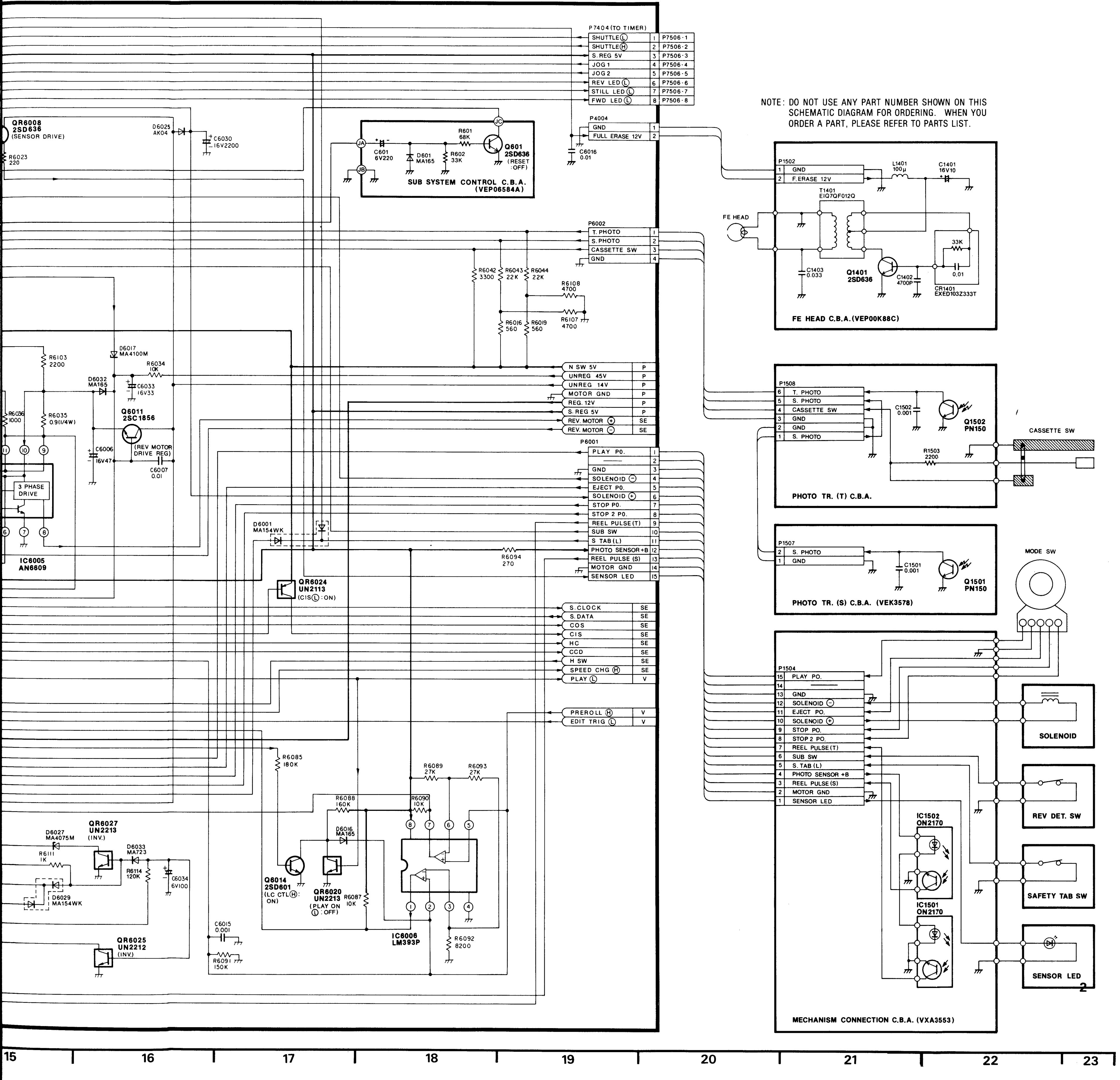
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
SYSTEM CONTROL Section

3-7. SYSTEM CONTROL SCHEMATIC DIAGRAM


SYSTEM CONTROL SECTION IN MAIN C.B.A. (VEP03599B)
P.........TO POWER SUPPLY
SE.........TO SERVO
V.........TO LUMINANCE & CHROMINANCE
A.........TO AUDIO
P TUNER 12V
A REC 12V
P AV Ⓗ
A A.DUB Ⓗ
A INSERT LED Ⓛ
A S.TAB +B
P A.DUB LED Ⓛ
A VTR 12V
SE FULL ERASE Ⓗ
V TRICK Ⓛ
SE SSS Ⓛ
SE R/S/F
SE FF REW Ⓛ
A A.MODE SEL Ⓗ
V V.EE Ⓛ
A A.EE Ⓗ
V SSS Ⓛ
A SSS Ⓛ
SE FG OUT
SE LC CTL
SE CAP QUICK Ⓗ
P M.VM DOWN
P POWER OFF Ⓗ
A LA MUTE Ⓗ
SE CAP ON/OFF
A FM MUTE Ⓗ
V D.REC Ⓗ
A D.A REC Ⓗ
A D.FM REC Ⓗ
A FLY ON Ⓗ
P TAPE SEL.
P7402 (TO TIMER)
P7502-1 1 LEVEL METER +5V
P7502-2 2 METER (R)
P7502-3 3 METER (L)
P7502-4 4 R CH Ⓗ
P7502-5 5 L CH Ⓗ
P7502-6 6 FIX 1
P7502-7 7 BUZZER
P7502-8 8 S.CLOCK
P7502-9 9 S.DATA
P7502-10 10 TUNER Ⓛ
P7502-11 11 FIX 2
P7502-12 12 SPECIAL CH Ⓛ
A FIX 2
A FIX 1
P TUNER Ⓛ
A L CH Ⓗ
A R CH Ⓗ
A METER (L)
A METER (R)
A LEVEL METER 5V
A REEL +B
QR6001 UN2212 (LINE Ⓗ : ON)
Q6001 2SB641 (VTR : ON)
QR6002 UN2213 (VTR Ⓗ ON)
Q6002 2SB790 (S.TAB Ⓛ : ON)
Q6003 2SB790 (F.ERASE : REG 12V)
QR6003 UN2213 (F.ERASE Ⓗ : ON)
QR6004 UN2213 (REC Ⓗ : ON)
Q6004 2SB709 (REC : ON)
QR6006 UN2211 (A.DUB Ⓗ : ON)
QR6005 UN2211 (INSERT Ⓗ : ON)
QR6011 UN2211 (REV LED DRIVE)
QR6008 UN2211 (FWD LED DRIVE)
QR6007 UN2211 (STILL LED DRIVE)
QR6009 UN2211 (LED DRIVE)
QR6010 UN2213 (LED DRIVE)
QR6021 UN2113 (CUE/REV/FF/REW Ⓛ : ON)
QR6013 UN2111 (SOLENOID Ⓛ : ON)
QR6022 UN2111 (RESET Ⓛ : ON)
IC6002 MN1280R
RESET
Q6015 2SD601 (FM MUTE Ⓗ : ON)
IC6003 MC14011BCP
D6007 MA154WA
D6026 MA165
R6019 MA154WA
S.REG 5V
N SW 5V
REG.12V
TP6010
TP6011
IC6001 MN188166VHI
R/S/F : FF Ⓗ
CUE/REV/FF/REW Ⓛ
A.MODE
LINE INPUT
TV/VTR
SENSOR LED
V.EE
A.EE
X7
MOTOR V
POWER OFF
LA MUTE Ⓗ
REW Ⓗ
FM MUTE Ⓗ
GND
RESET
D.REC
D.A REC
D.FM REC
FLYING ERASE
FULL ERASE
STOP/STILL/SLOW
SOLENOIDE
GND
RECORD
AUDIO DUBBING
INSERT RECORD
TRICK Ⓛ
PLAY ON Ⓛ
RVS (LED)
JOG/REEL SELECT
FWD (LED)
TEST/SERVICE
+5V
+5V
CAS SW
T PHOTO
S PHOTO
SHUTTLE 1
SHUTTLE 2
DEW
SUB SW
GND
GND
GND
SCK SLOT
SUB MOTOR FWD : ON
TAPE END Ⓗ : FWD
Vref 1 : READ Ⓛ
Vref 2 : WRITE Ⓗ
S.DATA OUT
S.DATA IN
S.CLOCK
NC
S.DATA OUT
S.DATA IN
SCK
COS
CIS
HC
CCD
V.DETECT EJECT
S.CHARGE
DOOR OPEN Ⓛ
CTL/FG SELECT
JOG1 : REEL(S)
JOG2 : REEL(T)
HEAD SW
CTL : FG
CTL
EXT CTL
X TAL
X TAL
GND
GND
VASS (LED)
REN(JM)(LED)
EDIT TRIG Ⓛ
PRE ROLL OUT
P.ROLL Ⓗ PLAY
S.TAB : STOP2
PAL/STOP1
QR6016 UN2213 (S.DATA INV)
Q6012 2SD636 (LEVEL METER REG 5V)
Q6013 2SD601 (BUZZER DRIVE)
X6002 VSQ0565
IC6004 µPC339C or LM339N
QR6018 UN2113 (JOG/REEL SELECTOR)
D6013 MA165
D6014 MA165
D6009 MA165
D6010 MA165
D6011
D6012 MA165×2
X6001 VSX0306
IC6007 MC14519BCP
VDD (B) (A) GND
QR6019 UN2213 (INV.)
R6002 22K
R6004 3300
R6003 5600
R6006 3300
R6005 1500
R6007 3300
R6101 18K
R6008 10K
R6009 3300
R6104 5600
R6028 470
R6105 270
C6042 16V10
C6039 6V22
R6011 5600
R6010 5600
R6012 5600
C6029 6V330
R6031 4700
R6033 1000
C6003 6V33
C6004 0.22
C6041 0.1
C6024 22P
C6025 220P
C6026 220P
C6027 220P
C6028 220P
R6030 10K
R6032 1500
C6005 150P
R6095 270
R6096 270
R6097 270
R6098 270
R6081 10K
R6082 10K
R6080 680
R6083
C6023 270P
C6022 270P
C6020 270P
C6021 270P
C6010 1000P
C6001 6V33
C6002 0.1
R6001 470
R6110 10K
R6029 47K
R6045 47K
R6046 47K
C6019 0.01
C6012 10V33
R6047 3300
R6067 150K
R6068 68K
R6054 3.9M
R6051 560K
R6052 560K
R6065 68K
R6063 560K
R6064 68K
R6062 560K
R6061 68K
R6069 3.9M
R6048 10K
R6049 10K
R6050 10K
R6066 68K
R6060 33K
R6058 33K
R6055 68K
R6057 15K
C6013 0.01
R6059 15K
C6014 0.01
R6056 120K
R6077 100
R6078 100
R6115 47K
R6079 10K
R6076 47K
C6037 33P
C6038 33P
R6119 10K
R6120 10K
R6121 10K
R6122 10K
R6071 33K
R6072 47K
R6073 33K
R6074 33K
R6075 33K
R6113 33K
H G F E D C B A
1 2 3 4 5 6 7 8 9 10 11 12 13


S.REG 5V
QR6006 UN2211 (A.DUB(H):ON)
QR6005 UN2211 (INSERT(H):ON)
QR6011 UN2211 (REV LED DRIVE)
QR6008 UN2211 (FWD LED DRIVE)
QR6007 UN2211 (STILL LED DRIVE)
R6011 5600
R6010 5600
QR6009 UN2211 (LED DRIVE)
QR6010 UN2213 (LED DRIVE)
QR6021 UN2113 (CUE/REV/FF/REW(L):ON)
R6012 5600
QR6013 UN2111 (SOLENOID(L):ON)
QR6022 UN2111 (RESET(L):ON)
C6029 6V 330
C6017 6V47
R6017 1500
R6016 270
D6003 MA165
D6004 MA165
R6018 5600
R6019 120
Q6006 2SD893 (SOLENOIDE DRIVE)
Q6007 2SD973 (SOLENOID DRIVE)
R6020 18(2W)
D6005 MA165
QR6014 UN2113 (SENSOR LED(L):ON)
C6018 0.01
R6123 1800
R6121 10K
Q6008 2SD636 (SENSOR DRIVE)
R6023 220
D6025 AK04
C6030 16V2200
R6019 MA154WA
N SW 5V
C6003 6V33
C6004 0.22
C6041 0.1
C6024 220P
R6031 4700
R6033 1000
TP6010
TP6011
C6025 220P
C6026 220P
R6112 10K
QR6016 UN2213 (TAPE END(H):ON)
D6021 MA156
C6027 220P
C6028 220P
R6030 10K
R6032 1500
C6005 150P
IC6001 MN188166VHI
R/S/F FF(H)
CUE/REV/FF/REW(L)
A MODE
LINE INPUT
TV/VTR
SENSOR LED
V.EE
A.EE
X7
MOTOR V
POWER OFF
LA MUTE(H)
REW(H)
FM MUTE(H)
GND
RESET
D.REC
D.A REC
D.FM REC
FLYING ERASE
FULL ERASE
STOP/STILL/SLOW
SOLENOIDE
GND
RECORD
AUDIO DUBBING
INSERT RECORD
TRICK(L)
PLAY ON(L)
RVS(LED)
JOG/REEL SELECT
FWD(LED)
+5V
+5V
+5V
TEST/SERVICE
CAS SW
T PHOTO
S PHOTO
SHUTTLE 1
SHUTTLE 2
DEW
SUB SW
GND
GND
SCK SLOT
SUB MOTOR FWD:ON
TAPE END(H):FWD
Vref 1 : READ(L)
Vref 2 : WRITE(H)
S.DATA OUT
S.DATA IN
S.CLOCK
NC
S.DATA OUT
S.DATA IN
SCK
COS
CIS
HC
CCD
V DETECT
EJECT
S.CHARGE
DOOR OPEN(L)
CTL/FG SELECT
JOG1 : REEL(S)
JOG2 : REEL(T)
HEAD SW
CTL FG
CTL
EXT CTL
X TAL
X TAL
GND
GND
VASS(LED)
RENUM(LED)
EDIT TRIG(L)
PRE ROLL OUT
P.ROLL(H) PLAY
S.TAB : STOP2
PAL/STOP1
R6095 270
R6096 270
R6097 270
R6098 270
R6083 680
R6081 10K
R6082 10K
QR6017 UN2213 (S.DATA INV.)
C6011 1000P
R6080 680
C6010 1000P
QR6016 UN2213 (S.DATA INV.)
C6023 270P
C6022 270P
C6020 270P
C6021 270P
R6086 10K
R6099 2200
R6100 2200
R6103 2200
R6041 560
R6039 1800
R6038 5600
R6036 1000
R6035 0.91(1/4W)
R6040 1800
DRIVE MODE SELECT LOGIC
Vref
3 PHASE DRIVE
C6008 0.022
IC6005 AN6609
D6017 MA4100M
D6032 MA165
R6034 10K
C6033 16V33
Q6011 2SC1856 (REV MOTOR DRIVE REG)
C6006 16V47
C6007 0.01
D6001 MA154WK
R6094 270
QR6024 UN2113 (CIS(L):ON)
R6077 100
R6078 100
D6009 MA165
D6010 MA165
D6011
D6012
MA165×2
R6079 10K
R6115 47K
REG.12V
R6076 47K
QR6019 UN2213 (INV.)
C6037 33P
X6001 VSX0306
C6038 33P
VDD
(B)
(A)
GND
IC6007 MC14519BCP
R6119 10K
R6120 10K
R6121 10K
R6122 10K
R6071 33K
R6072 47K
R6073 33K
R6074 33K
R6075 33K
R6113 33K
R6066 68K
D6014 MA165
C6014 0.01
D6027 MA4075M
R6111 1K
QR6027 UN2213 (INV.)
D6033 MA723
R6114 120K
C6034 6V100
D6029 MA154WK
QR6025 UN2212 (INV.)
C6015 0.001
R6091 150K
R6085 180K
R6088 160K
R6090 10K
R6089 27K
R6093 27K
D6016 MA165
Q6014 2SD601 (LC CTL(H):ON)
QR6020 UN2213 (PLAY ON(L):OFF)
R6087 10K
IC6006 LM393P
R6092 8200
P7404 (TO TIMER)
SHUTTLE(L) 1 P7506-1
SHUTTLE(H) 2 P7506-2
S.REG 5V 3 P7506-3
JOG 1 4 P7506-4
JOG 2 5 P7506-5
REV LED(L) 6 P7506-6
STILL LED(L) 7 P7506-7
FWD LED(L) 8 P7506-8
P4004
GND 1
FULL ERASE 12V 2
C6016 0.01
C601 6V220
D601 MA165
R601 68K
R602 33K
Q601 2SD636 (RESET:OFF)
SUB SYSTEM CONTROL C.B.A. (VEP06584A)
FE HEAD
P6002
T. PHOTO 1
S. PHOTO 2
CASSETTE SW 3
GND 4
R6042 3300
R6043 22K
R6044 22K
R6108 4700
R6107 4700
R6016 560
R6019 560
N SW 5V
UNREG 45V
UNREG 14V
MOTOR GND
REG. 12V
S.REG 5V
REV.MOTOR (+)
REV.MOTOR (−)
P6001
PLAY P0. 1
2
GND 3
SOLENOID (−) 4
EJECT P0. 5
SOLENOID (+) 6
STOP P0. 7
STOP 2 P0. 8
REEL PULSE(T) 9
SUB SW 10
S TAB(L) 11
PHOTO SENSOR+B 12
REEL PULSE (S) 13
MOTOR GND 14
SENSOR LED 15
S.CLOCK
S.DATA
COS
CIS
HC
CCD
H SW
SPEED CHG(H)
PLAY(L)
PREROLL(H)
EDIT TRIG(L)
8
9
10
11
12
13
14
15
16
17
18
19
20


P7404 (TO TIMER)
SHUTTLE Ⓛ
SHUTTLE Ⓗ
S. REG 5V
JOG 1
JOG 2
REV LED Ⓛ
STILL LED Ⓛ
FWD LED Ⓛ
P7506-1
P7506-2
P7506-3
P7506-4
P7506-5
P7506-6
P7506-7
P7506-8
P4004
GND
FULL ERASE 12V
C6016 0.01
QR6008 2SD636 (SENSOR DRIVE)
R6023 220
D6025 AK04
C6030 16V2200
C601 6V220
D601 MA165
R602 33K
R601 68K
Q601 2SD636 (RESET :OFF)
SUB SYSTEM CONTROL C.B.A. (VEP06584A)
P6002
T. PHOTO
S. PHOTO
CASSETTE SW
GND
R6042 3300
R6043 22K
R6044 22K
R6108 4700
R6107 4700
R6016 560
R6019 560
D6017 MA4100M
R6103 2200
R6034 10K
D6032 MA165
C6033 16V33
R6036 1000
R6035 0.91(1/4W)
Q6011 2SC1856 (REV MOTOR DRIVE REG)
C6006 16V47
C6007 0.01
3 PHASE DRIVE
IC6005 AN6609
N SW 5V
UNREG 45V
UNREG 14V
MOTOR GND
REG. 12V
S. REG 5V
REV. MOTOR ⊕
REV. MOTOR ⊖
P6001
PLAY PO.
GND
SOLENOID ⊖
EJECT PO.
SOLENOID ⊕
STOP PO.
STOP 2 PO.
REEL PULSE (T)
SUB SW
S TAB (L)
PHOTO SENSOR +B
REEL PULSE (S)
MOTOR GND
SENSOR LED
D6001 MA154WK
R6094 270
QR6024 UN2113 (CIS Ⓛ : ON)
S. CLOCK
S. DATA
COS
CIS
HC
CCD
H SW
SPEED CHG Ⓗ
PLAY Ⓛ
PREROLL Ⓗ
EDIT TRIG Ⓛ
R6085 180K
R6088 160K
R6089 27K
R6093 27K
R6090 10K
D6016 MA165
Q6014 2SD601 (LC CTL Ⓗ : ON)
QR6020 UN2213 (PLAY ON Ⓛ : OFF)
R6087 10K
IC6006 LM393P
R6092 8200
C6015 0.001
R6091 150K
D6027 MA4075M
QR6027 UN2213 (INV.)
R6111 1K
D6033 MA723
R6114 120K
C6034 6V100
D6029 MA154WK
QR6025 UN2212 (INV)
P1502
GND
F.ERASE 12V
L1401 100μ
C1401 16V10
T1401 EIQ7QF012Q
FE HEAD
33K
0.01
C1403 0.033
Q1401 2SD636
C1402 4700P
CR1401 EXED103Z333T
FE HEAD C.B.A. (VEP00K88C)
P1508
C1502 0.001
Q1502 PN150
R1503 2200
CASSETTE SW
PHOTO TR. (T) C.B.A.
P1507
C1501 0.001
Q1501 PN150
PHOTO TR. (S) C.B.A. (VEK3578)
MODE SW
P1504
IC1502 ON2170
IC1501 ON2170
SOLENOID
REV DET. SW
SAFETY TAB SW
SENSOR LED
MECHANISM CONNECTION C.B.A. (VXA3553)
15
16
17
18
19
20
21
22
23

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

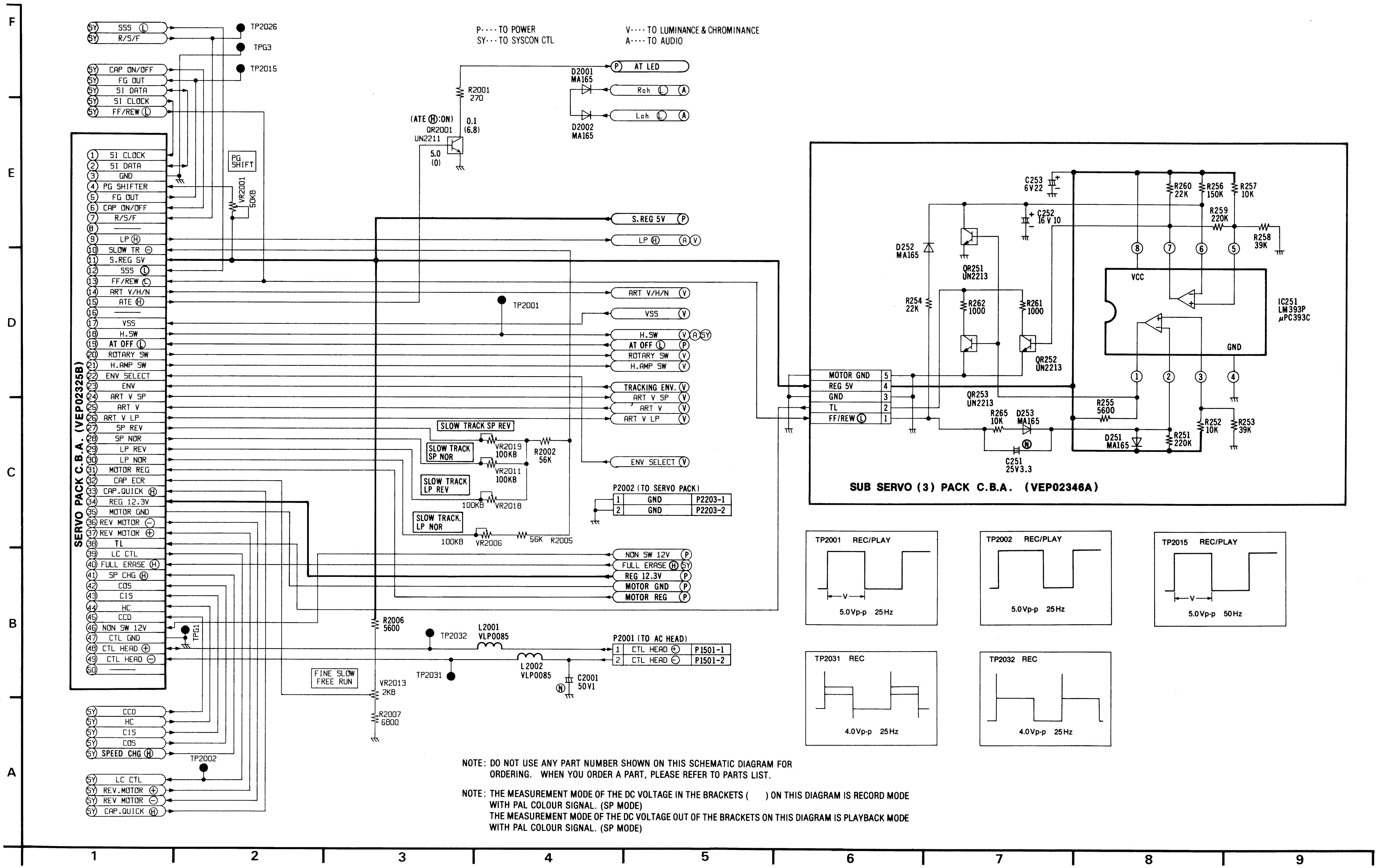
SYSTEM CONTROL ICs DC VOLTAGE CHART (SP MODE)

REF. NO.	IC6001																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
STOP	2.1	4.9	0	0.1	0	4.4	0.4	4.9	0	4.9	0	0	0	0	0	4.6	0	0	0	0
PLAY	0	4.9	0	0.1	0	4.4	4.9	0	0	0	0	0	4.9	0	0	4.5	0	0	0	0
FF	0	0	0	0.1	0	4.4	0.3	4.9	0	4.9	0	0	4.9	0	0	4.9	0	0	0	0
REF. NO.	IC6001																			
MODE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40
STOP	0	0	0	0	0	0	0	5.1	0.1	5.1	2.6	—	0	0	4.9	0	0	4.9	0	4.9
PLAY	0	0	0	0	4.9	4.9	2.9	2.8	3.2	3.6	2.7	—	0	0	4.9	0	0	4.9	1.1	3.8
FF	0	0	0	0	2.9	2.8	0	2.1	2.5	5.1	2.6	—	0	0	4.9	0	0	4.9	0	4.9
REF. NO.	IC6001																			
MODE	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
STOP	1.0	4.0	4.9	4.9	4.9	4.9	4.9	5.0	0.4	0.2	2.4	4.6	4.3	0.5	4.9	4.9	4.9	0	3.9	0
PLAY	1.1	4.9	4.9	4.9	4.9	4.9	4.9	5.0	0.4	0.4	1.8	4.6	4.2	0.6	4.9	4.9	4.9	0	3.8	0
FF	1.0	4.0	4.9	4.9	4.9	4.9	4.9	5.0	0.4	0.3	2.2	4.6	4.3	0.5	4.9	4.9	4.9	0	3.9	0
REF. NO.	IC6001																			
MODE	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
STOP	3.4	0	0	0	0.1	0.1	4.4	4.4	2.0	3.6	4.9	4.9	4.9	0	0	0	4.9	4.9	0	0
PLAY	3.5	0	0	0	2.4	1.9	4.4	4.4	2.0	3.6	4.9	4.9	4.9	0	0	0	0	4.9	0	0
FF	3.5	0	0	0	0.1	0.1	4.4	4.4	2.0	3.6	4.9	4.9	4.9	0	0	0	4.9	4.9	0	0
REF. NO.	IC6001										IC6002									
MODE	81	82	83	84							1	2	3							
STOP	0	0	4.9	4.9							4.5	4.8	0							
PLAY	0	0	4.9	4.9							4.5	4.8	0							
FF	0	0	4.9	4.9							4.9	4.9	0							
REF. NO.	IC6003																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	5.1	0	5.1	5.1	0.1	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
PLAY	2.7	0	5.1	2.3	3.0	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
FF	2.5	0	5.1	2.1	2.6	5.1	0	4.9	4.9	0	5.1	0	0	5.1						
REF. NO.	IC6004																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14						
STOP	4.9	4.9	5.1	0.1	2.0	3.7	5.0	3.7	4.5	2.8	1.6	0	0	0						
PLAY	4.9	4.9	5.1	2.3	2.0	3.7	5.0	3.7	5.0	2.7	2.0	0	4.9	0						
FF	2.9	2.9	5.1	1.2	1.8	3.7	4.8	3.7	4.8	1.1	1.8	0	3.1	3.1						
REF. NO.	IC6005																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	9.8	10.1	10.1	1.2	8.0	8.0	0	8.0	10.3	10.3	10.3	0	9.0	4.9	4.9	0				
PLAY	9.9	10.1	10.1	1.2	8.0	8.0	0	8.0	10.3	10.3	10.3	0	9.0	4.9	4.9	0				
FF	9.8	10.1	10.1	1.2	8.0	8.0	0	8.0	10.3	10.3	10.3	0	9.0	4.9	4.9	0				
REF. NO.	IC6006																			
MODE	1	2	3	4	5	6	7	8												
STOP	5.1	0.1	0.7	0	0	2.9	0.1	5.1												
PLAY	3.4	1.0	0.7	0	1.0	2.9	0.1	5.1												
FF	5.1	0	0.7	0	0	2.9	0.1	5.1												
REF. NO.	IC6007																			
MODE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16				
STOP	0.2	4.9	0.5	0	4.9	4.9	4.9	0	1.0	4.9	4.0	1.0	4.9	4.0	4.9	4.9				
PLAY	0.2	4.9	0.5	4.9	4.9	4.9	4.9	0	1.0	4.9	4.9	1.1	3.9	3.8	0	4.9				
FF	0.2	4.9	0.5	0	4.9	4.9	4.9	0	1.0	4.9	3.9	1.0	4.9	4.0	4.9	4.9				

SYSTEM CONTROL TRANSISTORs DC VOLTAGE CHART (SP MODE)

REF. NO.	Q6001			Q6002			Q6003			Q6004			Q6006			Q6007		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	12.2	0.1	12.2	12.3	12.3	11.5	12.3	0.3	12.3	12.3	0	12.3	13.5	13.5	5.3	0	13.5	0
PLAY	12.2	1.5	12.2	12.3	12.3	11.5	12.3	0.3	12.3	12.3	0.1	12.3	13.4	13.4	4.9	0	13.4	0
FF	12.2	0.1	12.2	12.3	12.3	11.6	12.3	0.5	12.3	12.3	0.1	12.3	13.5	13.5	5.4	0	13.4	0
REF. NO.	Q6008			Q6011			Q6012			Q6013			Q6014			Q6015		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0.7	13.5	0.6	10.3	13.5	11.6	4.9	4.9	5.6	0	0	0.7	0	0	0.1	0	4.9	0
PLAY	0.6	13.4	0.5	10.3	13.4	11.6	4.9	4.9	5.6	0	0	0.7	0	1.3	0.4	0	4.9	0
FF	0.8	13.5	0.5	10.3	13.5	11.6	4.9	4.9	5.6	0	0	0.7	0	0	0.5	0	4.9	0
REF. NO.	QR6001			QR6002			QR6003			QR6004			QR6005			QR6006		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	0.7	0	12.2	0	0	12.3	0	0	12.3	0	0	3.3	0	0	3.4	0
PLAY	0	0	0.7	0	12.2	0	0	12.3	0	0	12.3	0	0	3.5	0	0	3.6	0
FF	0	0	0.7	0	12.2	0	0	12.3	0	0	12.2	0	0	3.3	0	0	3.4	0
REF. NO.	QR6007			QR6008			QR6009			QR6010			QR6011			QR6013		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	4.4	0.6	0	4.0	0	0	0	3.4	0	3.4	0.6	0	3.3	0	5.1	0	4.9
PLAY	0	4.7	0.6	0	1.7	0	0	0	3.4	0	3.4	0.6	0	1.7	0	5.1	0	4.9
FF	0	4.4	0.6	0	3.4	0	0	0	3.4	0	3.4	0.6	0	3.1	0	5.1	0	4.9
REF. NO.	QR6014			QR6015			QR6016			QR6017			QR6018			QR6019		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	5.1	0.6	4.4	0	0.1	4.1	0	0.4	0.2	0	4.3	0.4	5.1	5.1	0	0	0.9	4.0
PLAY	5.1	0.5	4.4	0	0.1	4.1	0	0.4	0.2	0	4.2	0.5	5.1	5.1	0	0	1.0	3.8
FF	5.1	0.6	4.4	0	0.1	4.1	0	0.4	0.2	0	4.3	0.4	5.1	5.1	0	0	0.9	3.9
REF. NO.	QR6020			QR6021			QR6022			QR6024			QR6025			QR6026		
MODE	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
STOP	0	0	4.9	5.1	1.0	4.9	1.0	0	4.5	4.9	0	4.9	0	4.9	0.1	0	6.3	0
PLAY	0	1.3	0	5.1	1.0	4.9	1.0	0	4.5	4.9	0	4.9	0	4.9	0.1	0	0	0
FF	0	0	4.9	5.1	5.1	0	5.1	0	4.9	4.9	0	4.9	0	4.9	0.1	0	6.3	0

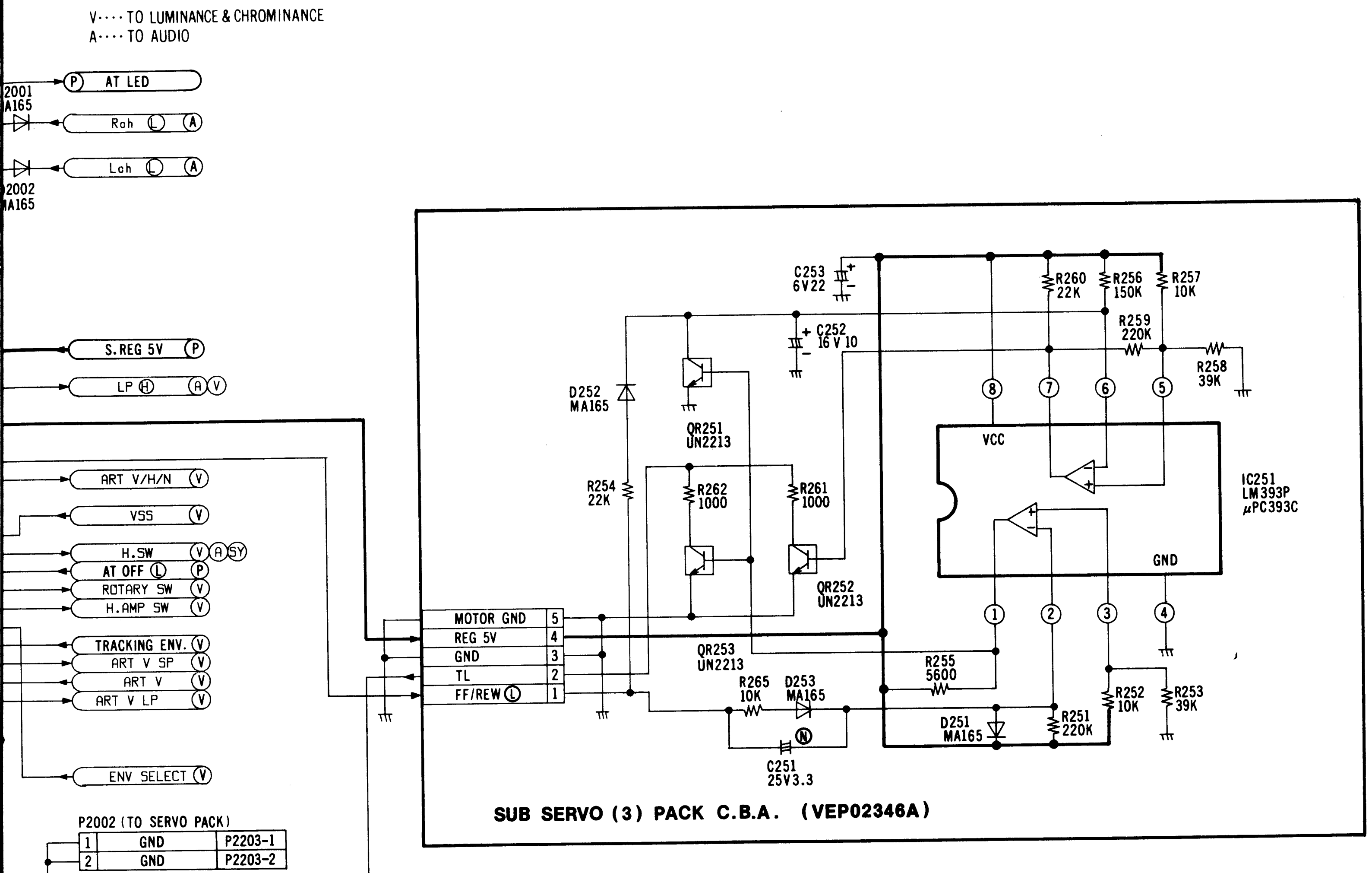
3-8. SERVO SCHEMATIC DIAGRAM

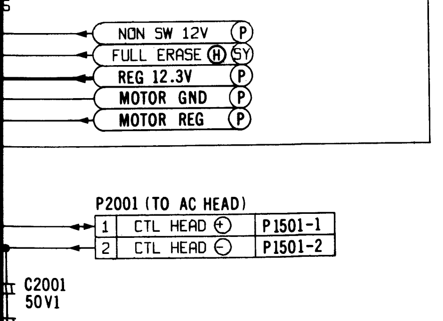

P····TO POWER
SY···TO SYSCON CTL
V····TO LUMINANCE & CHROMINANCE
A····TO AUDIO
SSS Ⓛ
R/S/F
CAP ON/OFF
FG OUT
SI DATA
SI CLOCK
FF/REW Ⓛ
TP2026
TPG3
TP2015
PG SHIFT
VR2001 50KB
SERVO PACK C.B.A. (VEP02325B)
SI CLOCK
SI DATA
GND
PG SHIFTER
FG OUT
CAP ON/OFF
R/S/F
LP Ⓗ
SLOW TR ⊖
S.REG 5V
SSS Ⓛ
FF/REW Ⓛ
ART V/H/N
ATE Ⓗ
VSS
H.SW
AT OFF Ⓛ
ROTARY SW
H.AMP SW
ENV SELECT
ENV
ART V SP
ART V
ART V LP
SP REV
SP NOR
LP REV
LP NOR
MOTOR REG
CAP ECR
CAP.QUICK Ⓗ
REG 12.3V
MOTOR GND
REV MOTOR ⊖
REV MOTOR ⊕
TL
LC CTL
FULL ERASE Ⓗ
SP CHG Ⓗ
COS
CIS
HC
CCD
NON SW 12V
CTL GND
CTL HEAD ⊕
CTL HEAD ⊖
TPG1
CCD
HC
CIS
COS
SPEED CHG Ⓗ
TP2002
LC CTL
REV.MOTOR ⊕
REV MOTOR ⊖
CAP.QUICK Ⓗ
R2001 270
(ATE Ⓗ:ON)
QR2001
UN2211
0.1 (6.8)
5.0 (0)
D2001 MA165
D2002 MA165
AT LED
Rch Ⓛ
Lch Ⓛ
S.REG 5V
LP Ⓗ
ART V/H/N
VSS
H.SW
AT OFF Ⓛ
ROTARY SW
H.AMP SW
TRACKING ENV.
ART V SP
ART V
ART V LP
ENV SELECT
TP2001
SLOW TRACK SP REV
SLOW TRACK SP NOR
SLOW TRACK LP REV
SLOW TRACK LP NOR
VR2019 100KB
R2002 56K
VR2011 100KB
100KB VR2018
100KB VR2006
56K R2005
P2002 (TO SERVO PACK)
GND P2203-1
GND P2203-2
NON SW 12V
FULL ERASE Ⓗ
REG 12.3V
MOTOR GND
MOTOR REG
R2006 5600
TP2032
L2001 VLP0085
L2002 VLP0085
P2001 (TO AC HEAD)
CTL HEAD ⊕ P1501-1
CTL HEAD ⊖ P1501-2
C2001 50V1
FINE SLOW FREE RUN
TP2031
VR2013 2KB
R2007 6800
SUB SERVO (3) PACK C.B.A. (VEP02346A)
MOTOR GND
REG 5V
GND
TL
FF/REW Ⓛ
C253 6V22
C252 16V10
R260 22K
R256 150K
R257 10K
R259 220K
R258 39K
D252 MA165
QR251 UN2213
R254 22K
R262 1000
R261 1000
QR252 UN2213
VCC
GND
IC251 LM393P μPC393C
QR253 UN2213
R265 10K
D253 MA165
R255 5600
D251 MA165
R251 220K
R252 10K
R253 39K
C251 25V3.3
TP2001 REC/PLAY
5.0Vp-p 25Hz
TP2002 REC/PLAY
5.0Vp-p 25Hz
TP2015 REC/PLAY
5.0Vp-p 50Hz
TP2031 REC
4.0Vp-p 25Hz
TP2032 REC
4.0Vp-p 25Hz
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9

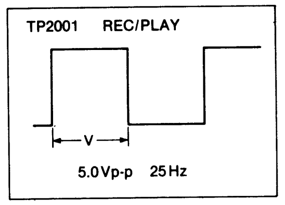
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

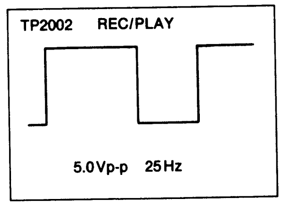
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

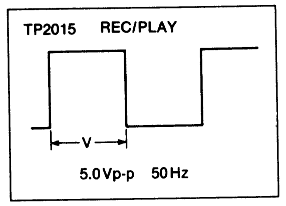
3-9. SUB SERVO (3) PACK C.B.A. (VEP02346A)

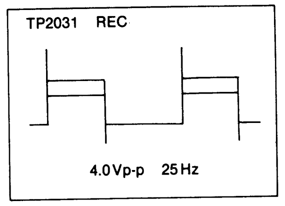

V···· TO LUMINANCE & CHROMINANCE
A···· TO AUDIO
AT LED
2001
A165
Rch
Lch
2002
A165
S.REG 5V
LP
ART V/H/N
VSS
H.SW
AT OFF
ROTARY SW
H.AMP SW
TRACKING ENV.
ART V SP
ART V
ART V LP
ENV SELECT
P2002 (TO SERVO PACK)
1 GND P2203-1
2 GND P2203-2
C253 6V22
C252 16V10
R260 22K
R256 150K
R257 10K
R259 220K
R258 39K
D252 MA165
QR251 UN2213
R254 22K
R262 1000
R261 1000
QR252 UN2213
VCC
GND
IC251 LM393P µPC393C
MOTOR GND 5
REG 5V 4
GND 3
TL 2
FF/REW 1
QR253 UN2213
R265 10K
D253 MA165
R255 5600
D251 MA165
R251 220K
R252 10K
R253 39K
C251 25V3.3
SUB SERVO (3) PACK C.B.A. (VEP02346A)

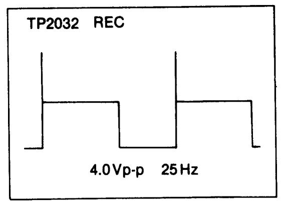

NON SW 12V
FULL ERASE
REG 12.3V
MOTOR GND
MOTOR REG
P2001 (TO AC HEAD)
1 CTL HEAD ⊕ P1501-1
2 CTL HEAD ⊖ P1501-2
C2001
50V1









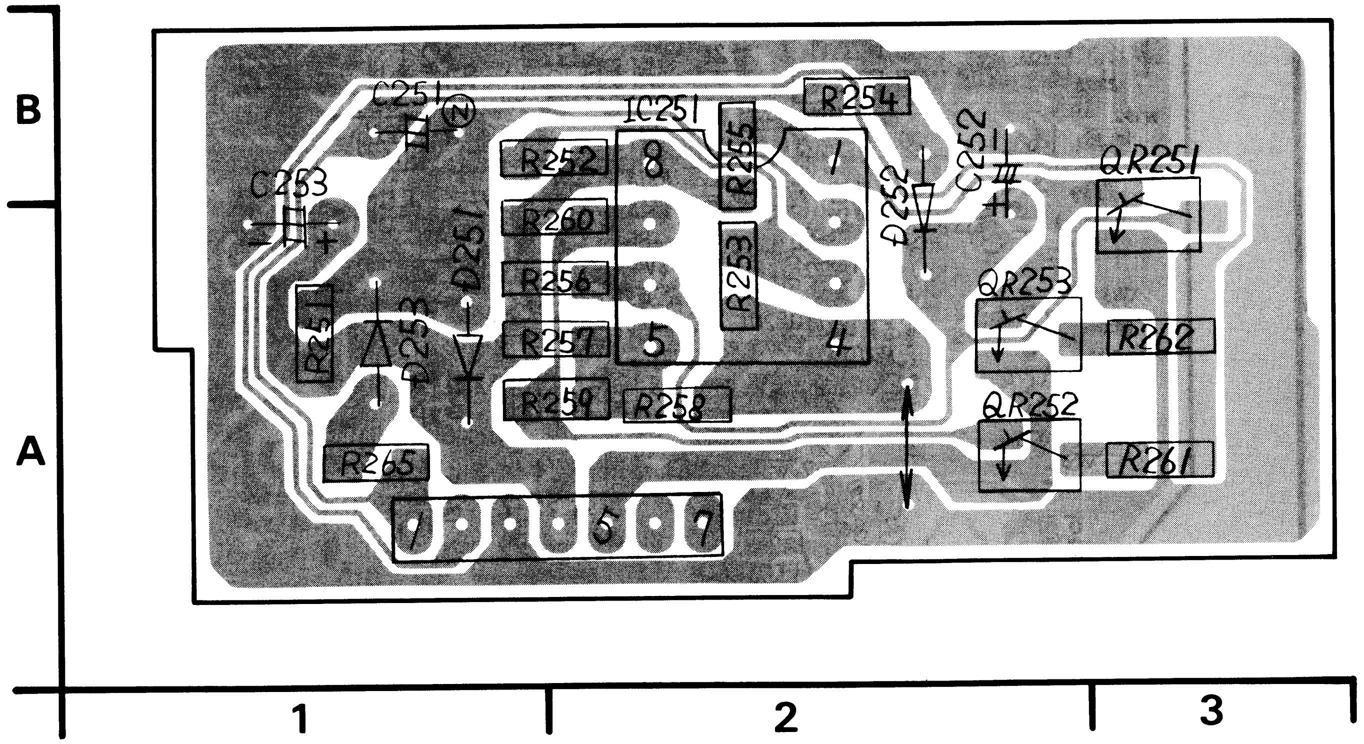


ART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR
YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE
SIGNAL. (SP MODE)
MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE
SIGNAL. (SP MODE)

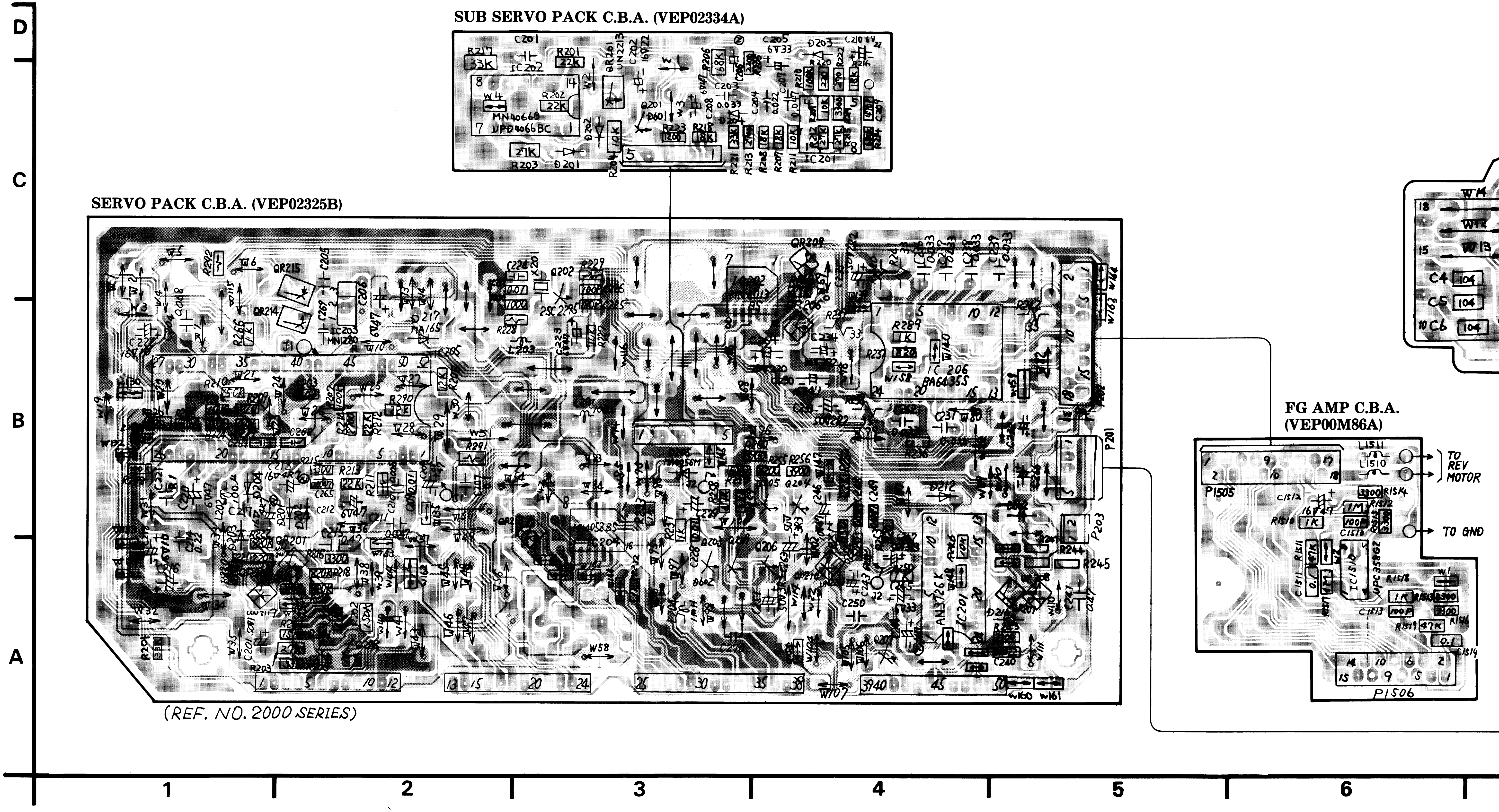
SUB SERVO (3) PACK C.B.A.	
Transistor & Resistor	
QR251 QR252 QR253	B-3 A-2 A-2
Integrated Circuit	
IC251	B-2

ADDRESS INFORMATION

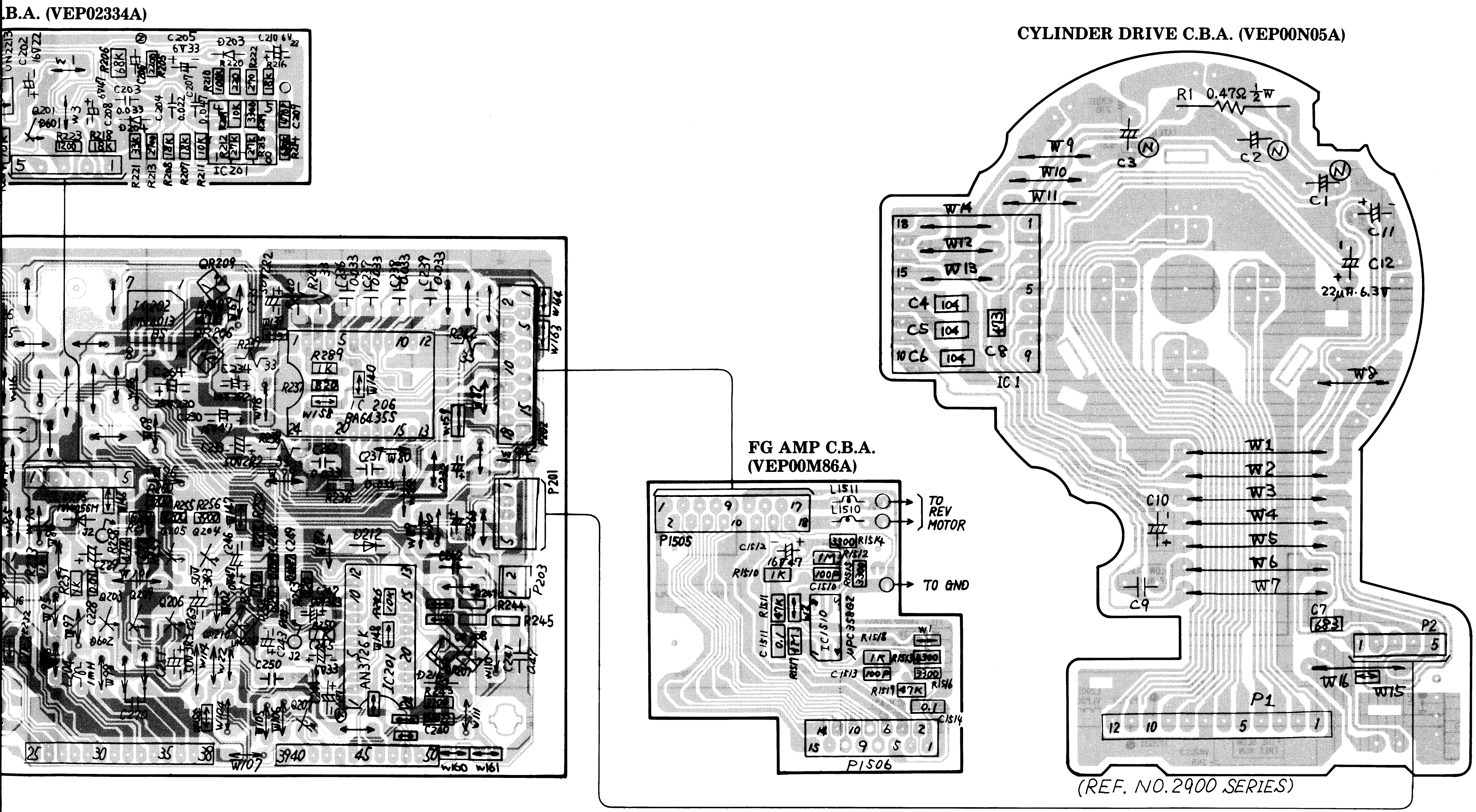

B
A
C251
C253
IC251
R254
R252
R260
R256
R257
R259
R258
R265
R253
R251
D253
D251
D252
C252
QR251
QR253
QR252
R262
R261
8
1
5
4
7
1
2
3

Next Page:
SERVO PACK Section

3-10. SERVO PACK C.B.A. (VEP02325B)



D
C
B
A
1
2
3
4
5
6
SUB SERVO PACK C.B.A. (VEP02334A)
IC202
MN4066B
μPD4066BC
IC201
SERVO PACK C.B.A. (VEP02325B)
IC203
MN1280
IC206
BA6435S
IC201
AN3726K
MN4053BS
J1
J2
P201
P203
(REF. NO. 2000 SERIES)
FG AMP C.B.A.
(VEP00M86A)
P1505
P1506
IC1510
μPC358G2
TO REV MOTOR
TO GND


.B.A. (VEP02334A)
CYLINDER DRIVE C.B.A. (VEP00N05A)
FG AMP C.B.A. (VEP00M86A)
IC201
IC 206 BA6435S
AN3726K
P201
P202
P203
P1505
P1506
IC1510
µPC358C2
TO REV MOTOR
TO GND
IC 1
R1 0.47Ω ½W
22µF 6.3V
P1
P2
(REF. NO.2900 SERIES)

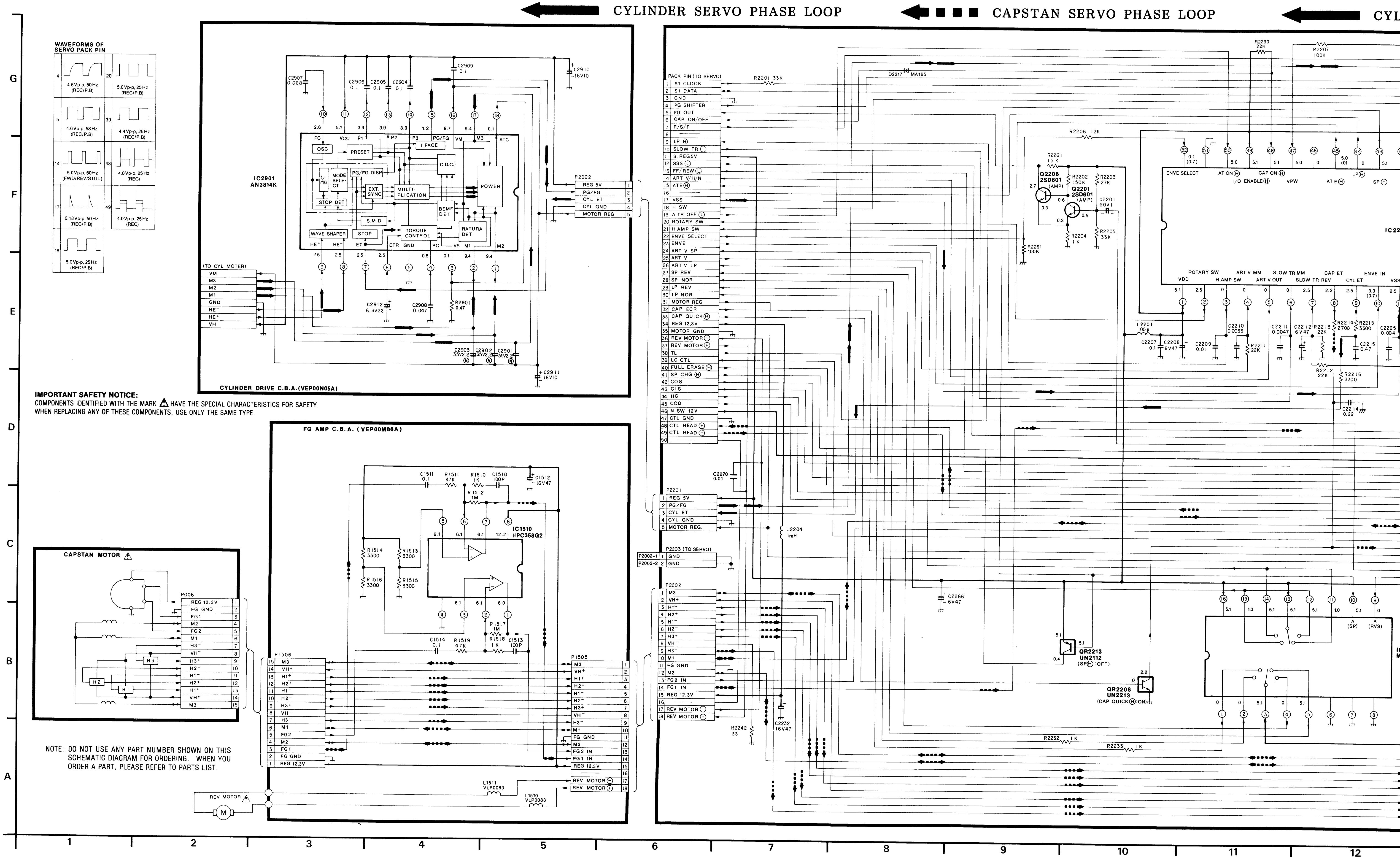
SERVO PACK C.B.A.	
Transistor	
Q201	C-3
Q2201	A-2
Q2202	C-3
Q2203	A-3
Q2204	B-4
Q2205	B-4
Q2206	A-4
Q2207	A-4
Q2208	A-2
Q2209	A-3
Transistor & Resistor	
QR201	C-3
QR2201	A-2
QR2202	A-1
QR2206	B-4
QR2207	A-5
QR2208	A-5
QR2209	C-4
QR2210	A-4
QR2213	B-3
QR2214	B-1
QR2215	C-2
Integrated Circuit	
IC201	C-4
IC202	C-3
IC1510	A-6
IC2201	A-4
IC2202	C-3
IC2203	B-2
IC2204	A-3
IC2205	B-2
IC2206	B-4
IC2901	B-7
Connector	
P1505	B-5
P1506	A-6
P2201	B-5
P2202	B-5
P2203	B-5
P2901	A-8
P2902	A-8

ADDRESS INFORMATION

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3 4 5 6 7 8

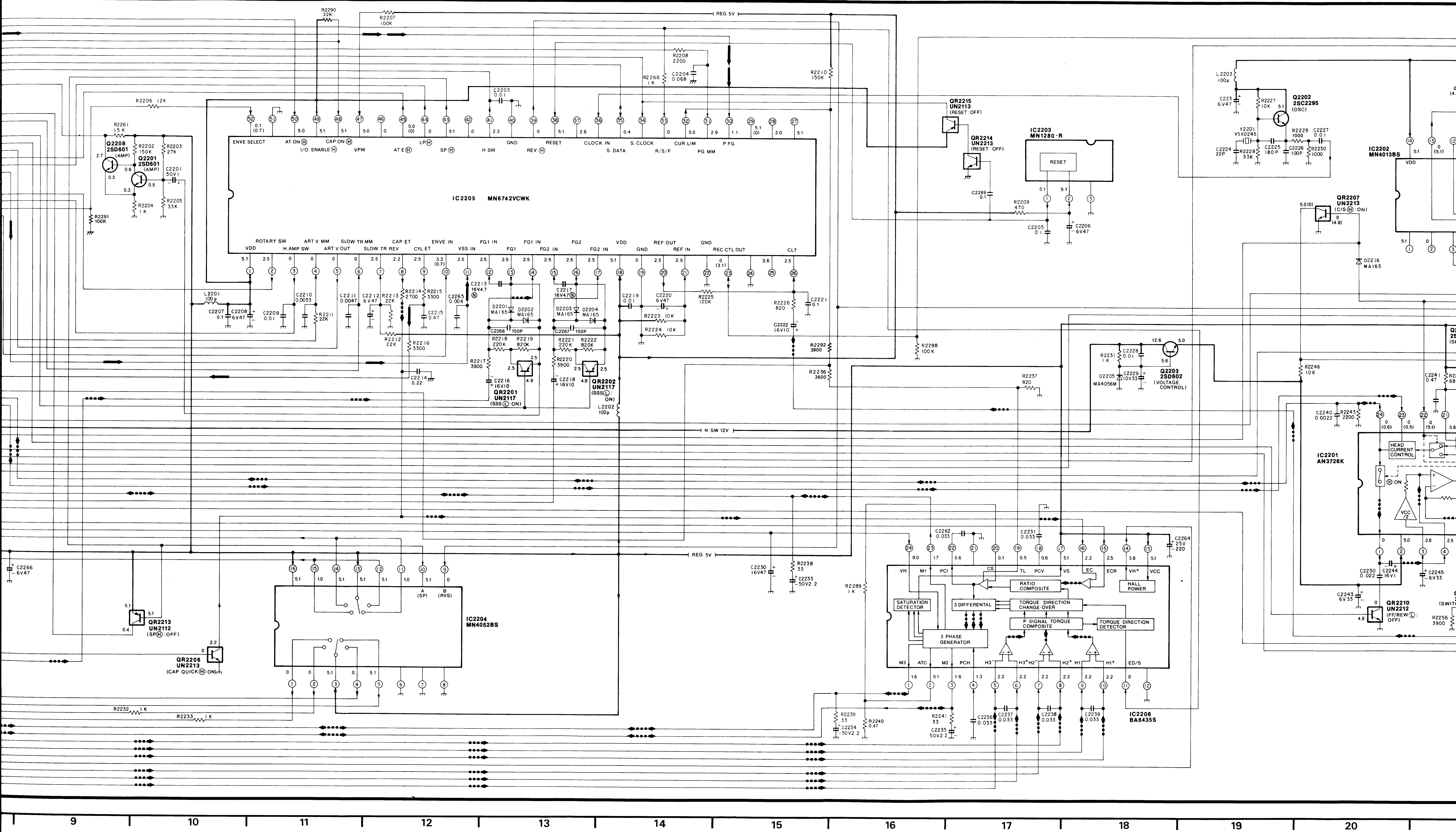
3-11. SERVO PACK SCHEMATIC DIAGRAM


CYLINDER SERVO PHASE LOOP
CAPSTAN SERVO PHASE LOOP
CYL
WAVEFORMS OF SERVO PACK PIN
4.6Vp-p, 50Hz (REC/P.B)
5.0Vp-p, 25Hz (REC/P.B)
4.6Vp-p, 58Hz (REC/P.B)
4.4Vp-p, 25Hz (REC/P.B)
5.0Vp-p, 50Hz (FWD/REV/STILL)
4.0Vp-p, 25Hz (REC)
0.18Vp-p, 50Hz (REC/P.B)
4.0Vp-p, 25Hz (REC)
5.0Vp-p, 25Hz (REC/P.B)
IC2901 AN3814K
CYLINDER DRIVE C.B.A.(VEP00N05A)
(TO CYL MOTER)
VM
M3
M2
M1
GND
HE⁻
HE⁺
VH
P2902
REG 5V
PG/FG
CYL ET
CYL GND
MOTOR REG
FG AMP C.B.A. (VEP00M86A)
IC1510 μPC358G2
CAPSTAN MOTOR
P006
P1506
P1505
REV MOTOR
L1511 VLP0083
L1510 VLP0083
PACK PIN (TO SERVO)
1 S1 CLOCK
2 S1 DATA
3 GND
4 PG SHIFTER
5 FG OUT
6 CAP ON/OFF
7 R/S/F
8
9 LP Ⓗ
10 SLOW TR ⊖
11 S.REG5V
12 SSS Ⓛ
13 FF/REW Ⓛ
14 ART V/H/N
15 ATE Ⓗ
16
17 VSS
18 H SW
19 A TR OFF Ⓛ
20 ROTARY SW
21 H AMP SW
22 ENVE SELECT
23 ENVE
24 ART V SP
25 ART V
26 ART V LP
27 SP REV
28 SP NOR
29 LP REV
30 LP NOR
31 MOTOR REG
32 CAP ECR
33 CAP QUICK Ⓗ
34 REG 12.3V
35 MOTOR GND
36 REV MOTOR ⊖
37 REV MOTOR ⊕
38 TL
39 LC CTL
40 FULL ERASE Ⓗ
41 SP CHG Ⓗ
42 COS
43 CIS
44 HC
45 CCD
46 N SW 12V
47 CTL GND
48 CTL HEAD ⊕
49 CTL HEAD ⊖
50
P2201
P2203 (TO SERVO)
P2202
Q2208 2SD601 (AMP)
Q2201 2SD601 (AMP)
QR2213 UN2112 (SPⒽ:OFF)
QR2206 UN2213 (CAP QUICKⒽ:ON)
D2217 MA165
ENVE SELECT
AT ON Ⓗ
CAP ON Ⓗ
I/O ENABLE Ⓗ
VPW
AT E Ⓗ
LP Ⓗ
SP Ⓗ
ROTARY SW
ART V MM
SLOW TR MM
CAP ET
ENVE IN
VDD
H.AMP SW
ART V OUT
SLOW TR REV
CYL ET
VSS
A (SP)
B (RVS)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12

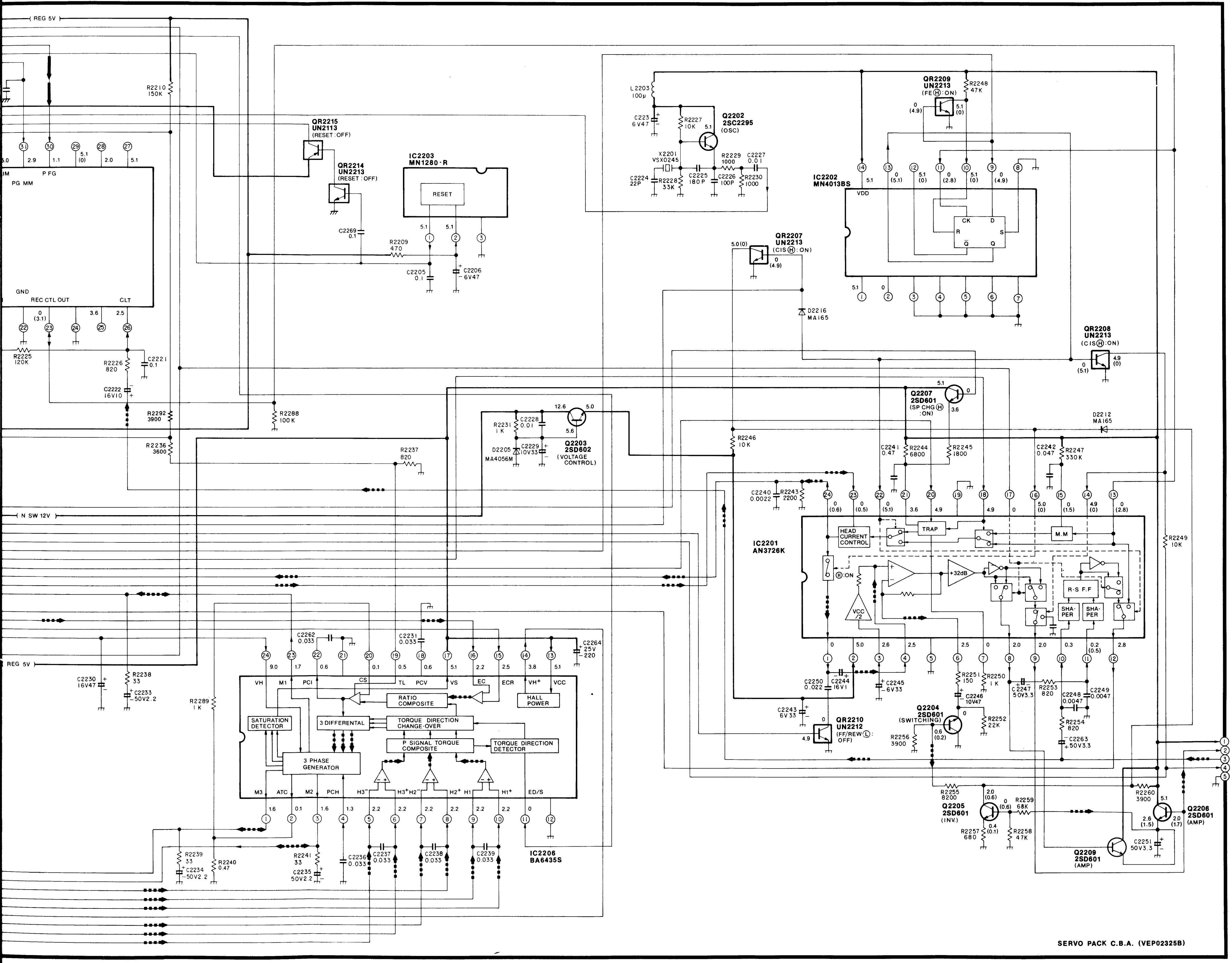
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

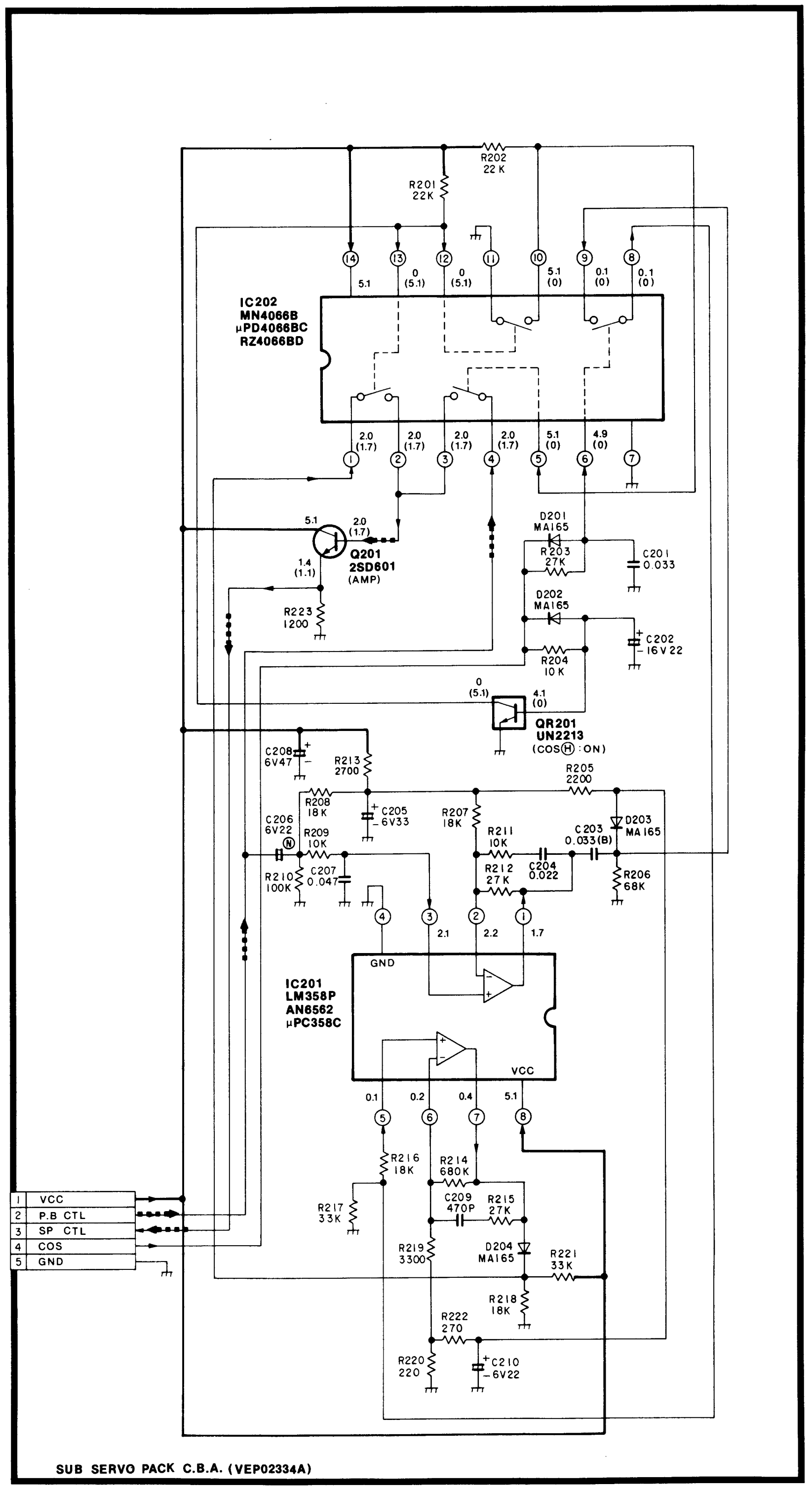
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

■ ■ ■ CAPSTAN SERVO PHASE LOOP ◀━━ CYLINDER SERVO SPEED LOOP ◀━ ■ ■ ■ CAPSTAN SERVO SPEED LOOP


REG 5V
N SW 12V
IC2205 MN6742VCWK
ENVE SELECT
AT ON(H)
I/O ENABLE(H)
CAP ON(H)
VPW
AT E(H)
LP(H)
SP(H)
H SW
GND
REV(H)
RESET
CLOCK IN
S. DATA
S. CLOCK
R/S/F
CUR LIM
PG MM
P FG
VDD
ROTARY SW
H.AMP SW
ART V MM
ART V OUT
SLOW TR MM
SLOW TR REV
CAP ET
CYL ET
ENVE IN
VSS IN
FG1 IN
FG1
FG2 IN
FG2
REF OUT
REF IN
REC CTL OUT
CLT
Q2208 2SD601 (AMP)
Q2201 2SD601 (AMP)
QR2201 UN2117 (SSS(L):ON)
QR2202 UN2117 (SSS(L):ON)
QR2215 UN2113 (RESET:OFF)
QR2214 UN2213 (RESET:OFF)
IC2203 MN1280·R
RESET
Q2202 2SC2295 (OSC)
X2201 VSX0245
IC2202 MN4013BS
QR2207 UN2213 (CIS(H):ON)
D2216 MA165
Q2203 2SD602 (VOLTAGE CONTROL)
D2205 MA4056M
IC2201 AN3726K
HEAD CURRENT CONTROL
VCC/2
QR2210 UN2212 (FF/REW(L):OFF)
QR2213 UN2112 (SP(H):OFF)
QR2206 UN2213 (CAP QUICK(H):ON)
IC2204 MN4052BS
A (SP)
B (RVS)
IC2206 BA6435S
SATURATION DETECTOR
3 DIFFERENTIAL
3 PHASE GENERATOR
RATIO COMPOSITE
TORQUE DIRECTION CHANGE-OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
HALL POWER
9
10
11
12
13
14
15
16
17
18
19
20

CAPSTAN SERVO SPEED LOOP


REG 5V
N SW 12V
REG 5V
R2210 150K
QR2215 UN2113 (RESET OFF)
QR2214 UN2213 (RESET OFF)
IC2203 MN1280-R
RESET
R2209 470
C2205 0.1
C2206 6V47
C2269 0.1
PG MM
P FG
GND
REC CTL OUT
CLT
R2225 120K
R2226 820
C2221 0.1
C2222 16V10
R2292 3900
R2288 100K
R2236 3600
R2237 820
L2203 100μ
C223 6V47
R2227 10K
Q2202 2SC2295 (OSC)
X2201 VSX0245
C2224 22P
R2228 33K
C2225 180P
C2226 100P
R2229 1000
C2227 0.01
R2230 1000
QR2209 UN2213 (FE Ⓗ : ON)
R2248 47K
IC2202 MN4013BS
VDD
CK
D
R
S
Q̄
Q
QR2207 UN2213 (CIS Ⓗ : ON)
D2216 MA165
QR2208 UN2213 (CIS Ⓗ : ON)
Q2207 2SD601 (SP CHG Ⓗ : ON)
D2212 MA165
R2231 1K
C2228 0.01
D2205 MA4056M
C2229 10V33
Q2203 2SD602 (VOLTAGE CONTROL)
R2246 10K
C2241 0.47
R2244 6800
R2245 1800
C2242 0.047
R2247 330K
C2240 0.0022
R2243 2200
IC2201 AN3728K
HEAD CURRENT CONTROL
TRAP
M.M
Ⓗ ON
+32dB
VCC/2
R-S F.F
SHAPER
R2249 10K
C2250 0.022
C2244 16V1
C2245 6V33
R2251 150
R2250 1K
C2246 10V47
C2247 50V3.3
R2253 820
C2248 0.0047
C2249 0.0047
R2254 820
C2263 50V3.3
C2243 6V33
QR2210 UN2212 (FF/REW Ⓛ : OFF)
Q2204 2SD601 (SWITCHING)
R2256 3900
R2252 22K
R2255 8200
Q2205 2SD601 (INV)
R2257 680
R2258 47K
R2259 68K
R2260 3900
Q2206 2SD601 (AMP)
C2251 50V3.3
Q2209 2SD601 (AMP)
C2262 0.033
C2231 0.033
C2264 25V 220
C2230 16V47
R2238 33
C2233 50V2.2
R2289 1K
VH
M1
PCI
CS
TL
PCV
VS
EC
ECR
VH+
VCC
RATIO COMPOSITE
HALL POWER
SATURATION DETECTOR
3 DIFFERENTAL
TORQUE DIRECTION CHANGE-OVER
P SIGNAL TORQUE COMPOSITE
TORQUE DIRECTION DETECTOR
3 PHASE GENERATOR
M3
ATC
M2
PCH
H3−
H3+
H2−
H2+
H1
H1+
ED/S
R2239 33
C2234 50V2.2
R2240 0.47
R2241 33
C2235 50V2.2
C2236 0.033
C2237 0.033
C2238 0.033
C2239 0.033
IC2206 BA6435S
SERVO PACK C.B.A. (VEP02325B)


IC202 MN4066B μPD4066BC RZ4066BD
R201 22K
R202 22K
Q201 2SD601 (AMP)
R223 1200
D201 MA165
R203 27K
C201 0.033
D202 MA165
R204 10K
C202 16V22
QR201 UN2213 (COS Ⓗ : ON)
C208 6V47
R213 2700
R205 2200
R208 18K
C205 6V33
R207 18K
C206 6V22
R209 10K
R211 10K
C203 0.033(B)
D203 MA165
R210 100K
C207 0.047
R212 27K
C204 0.022
R206 68K
IC201 LM358P AN6562 μPC358C
GND
VCC
R216 18K
R214 680K
C209 470P
R215 27K
R217 33K
R219 3300
D204 MA165
R221 33K
R218 18K
R222 270
R220 220
C210 6V22
1 VCC
2 P.B CTL
3 SP CTL
4 COS
5 GND
SUB SERVO PACK C.B.A. (VEP02334A)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

15 16 17 18 19 20 21 22 23 24 25 26

Next Page:
LUMINANCE & CHROMINANCE Section

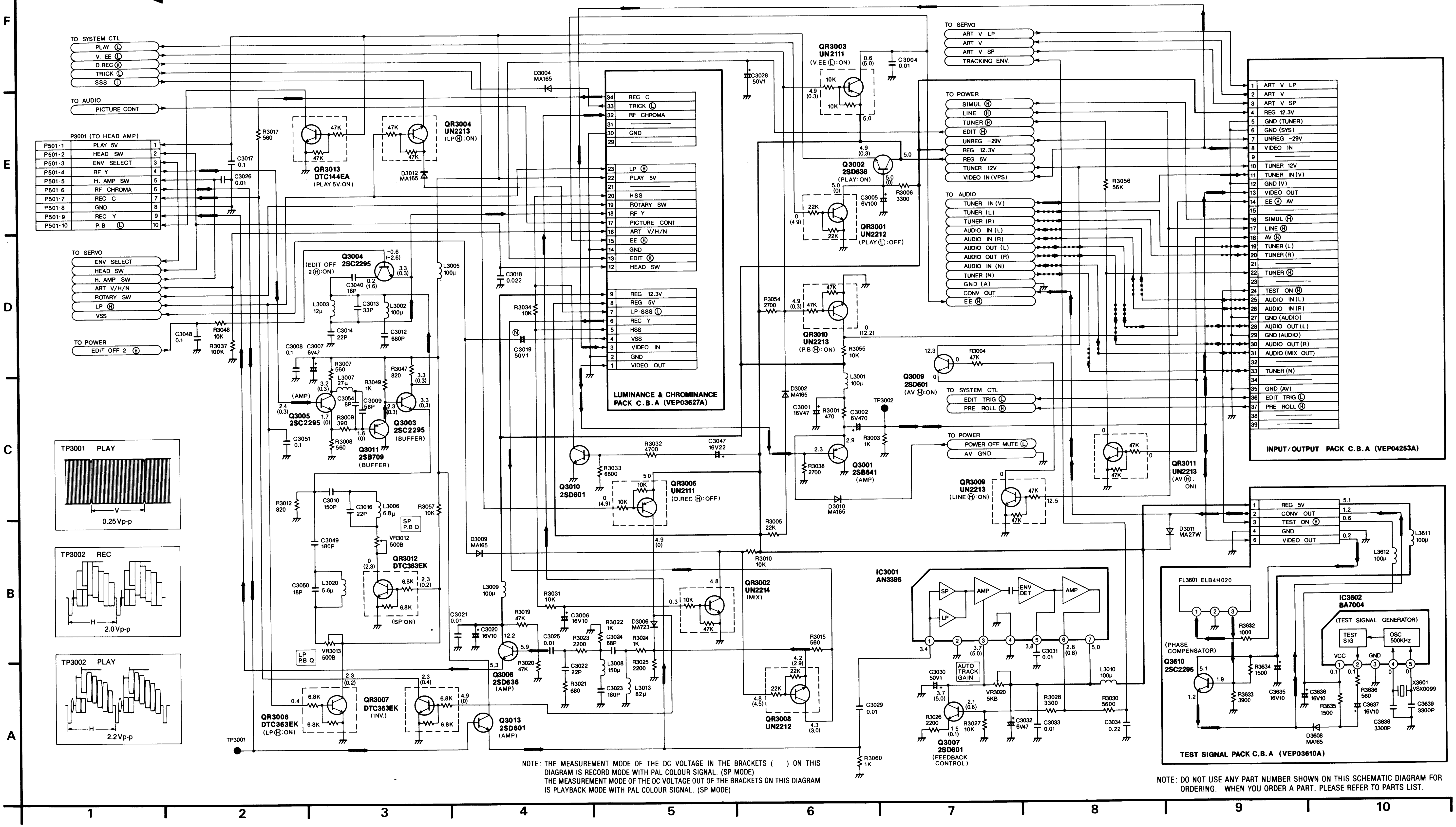
3-12. LUMINANCE & CHROMINANCE SCHEMATIC DIAGRAM

⬅ VIDEO MAIN SIGNAL PATH IN REC MODE

⬅ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

⬅ ■ ■ ■ AUDIO MAIN SIGNAL PATH IN REC MODE

⬅ ■ ■ ■ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

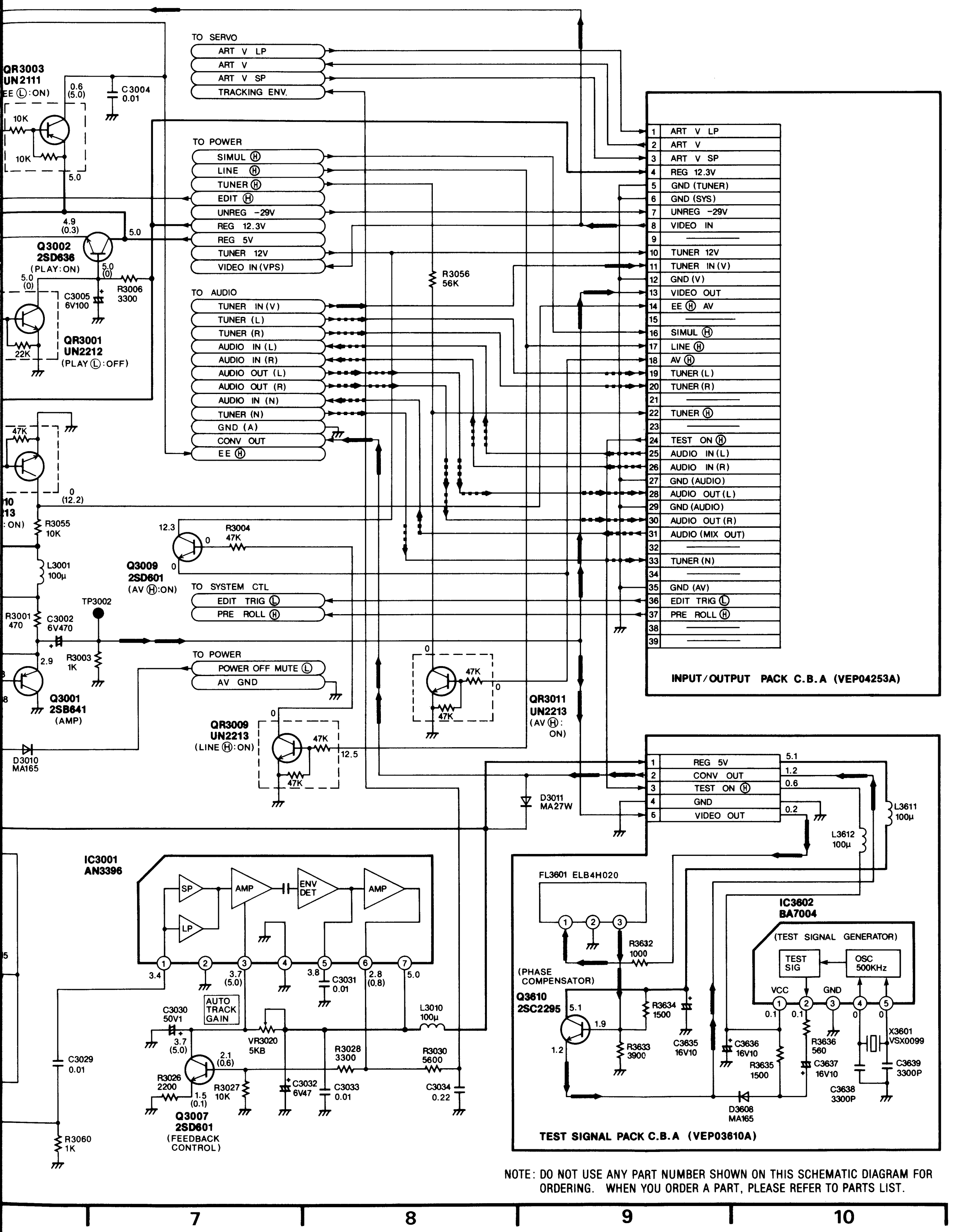

F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
TO SYSTEM CTL
PLAY Ⓛ
V. EE Ⓛ
D.REC Ⓗ
TRICK Ⓛ
SSS Ⓛ
TO AUDIO
PICTURE CONT
P3001 (TO HEAD AMP)
P501·1 PLAY 5V 1
P501·2 HEAD SW 2
P501·3 ENV SELECT 3
P501·4 RF Y 4
P501·5 H. AMP SW 5
P501·6 RF CHROMA 6
P501·7 REC C 7
P501·8 GND 8
P501·9 REC Y 9
P501·10 P.B Ⓛ 10
TO SERVO
ENV SELECT
HEAD SW
H. AMP SW
ART V/H/N
ROTARY SW
LP Ⓗ
VSS
TO POWER
EDIT OFF 2 Ⓗ
C3017 0.1
C3026 0.01
R3017 560
QR3013 DTC144EA (PLAY 5V:ON)
QR3004 UN2213 (LPⒽ:ON)
D3012 MA165
D3004 MA165
C3028 50V1
LUMINANCE & CHROMINANCE PACK C.B.A (VEP03627A)
34 REC C
33 TRICK Ⓛ
32 RF CHROMA
31
30 GND
29
23 LP Ⓗ
22 PLAY 5V
21
20 HSS
19 ROTARY SW
18 RF Y
17 PICTURE CONT
16 ART V/H/N
15 EE Ⓗ
14 GND
13 EDIT Ⓗ
12 HEAD SW
9 REG 12.3V
8 REG 5V
7 LP·SSS Ⓛ
6 REC Y
5 HSS
4 VSS
3 VIDEO IN
2 GND
1 VIDEO OUT
Q3004 2SC2295 (EDIT OFF 2Ⓗ:ON)
C3040 18P
L3003 12μ
C3013 33P
L3002 100μ
C3014 22P
C3012 680P
L3005 100μ
C3018 0.022
R3034 10K
C3019 50V1
C3048 0.1
R3048 10K
R3037 100K
C3008 0.1
C3007 6V47
R3007 560
L3007 27μ
R3049 1K
R3047 820
C3054 8P
C3009 56P
Q3005 2SC2295 (AMP)
R3009 390
R3008 560
Q3011 2SB709 (BUFFER)
Q3003 2SC2295 (BUFFER)
C3051 0.1
TP3001 PLAY
0.25Vp-p
TP3002 REC
2.0Vp-p
TP3002 PLAY
2.2Vp-p
R3012 820
C3010 150P
C3016 22P
L3006 6.8μ
R3057 10K
SP P.B Q
VR3012 500B
QR3012 DTC363EK (SP:ON)
C3049 180P
C3050 18P
L3020 5.6μ
LP P.B Q
VR3013 500B
QR3006 DTC363EK (LP Ⓗ:ON)
QR3007 DTC363EK (INV.)
Q3013 2SD601 (AMP)
TP3001
D3009 MA165
L3009 100μ
C3021 0.01
C3020 16V10
R3019 47K
R3020 47K
Q3006 2SD636 (AMP)
R3031 10K
C3006 16V10
C3025 0.01
R3023 2200
C3022 22P
R3021 680
R3022 1K
C3024 68P
L3008 150μ
C3023 180P
D3006 MA723
R3024 1K
R3025 2200
L3013 82μ
Q3010 2SD601
R3033 6800
R3032 4700
C3047 16V22
QR3005 UN2111 (D.REC Ⓗ:OFF)
QR3002 UN2214 (MIX)
R3010 10K
R3005 22K
R3015 560
QR3008 UN2212
C3029 0.01
R3060 1K
QR3003 UN2111 (V.EE Ⓛ:ON)
C3004 0.01
Q3002 2SD636 (PLAY:ON)
C3005 6V100
R3006 3300
QR3001 UN2212 (PLAY Ⓛ:OFF)
R3054 2700
QR3010 UN2213 (P.B Ⓗ:ON)
R3055 10K
L3001 100μ
D3002 MA165
C3001 16V47
R3001 470
C3002 6V470
TP3002
R3003 1K
R3038 2700
Q3001 2SB641 (AMP)
D3010 MA165
R3056 56K
TO SERVO
ART V LP
ART V
ART V SP
TRACKING ENV.
TO POWER
SIMUL Ⓗ
LINE Ⓗ
TUNER Ⓗ
EDIT Ⓗ
UNREG −29V
REG 12.3V
REG 5V
TUNER 12V
VIDEO IN (VPS)
TO AUDIO
TUNER IN (V)
TUNER (L)
TUNER (R)
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
AUDIO IN (N)
TUNER (N)
GND (A)
CONV OUT
EE Ⓗ
R3004 47K
Q3009 2SD601 (AV Ⓗ:ON)
TO SYSTEM CTL
EDIT TRIG Ⓛ
PRE ROLL Ⓗ
TO POWER
POWER OFF MUTE Ⓛ
AV GND
QR3009 UN2213 (LINE Ⓗ:ON)
QR3011 UN2213 (AV Ⓗ: ON)
1 ART V LP
2 ART V
3 ART V SP
4 REG 12.3V
5 GND (TUNER)
6 GND (SYS)
7 UNREG −29V
8 VIDEO IN
9
10 TUNER 12V
11 TUNER IN (V)
12 GND (V)
13 VIDEO OUT
14 EE Ⓗ AV
15
16 SIMUL Ⓗ
17 LINE Ⓗ
18 AV Ⓗ
19 TUNER (L)
20 TUNER (R)
21
22 TUNER Ⓗ
23
24 TEST ON Ⓗ
25 AUDIO IN (L)
26 AUDIO IN (R)
27 GND (AUDIO)
28 AUDIO OUT (L)
29 GND (AUDIO)
30 AUDIO OUT (R)
31 AUDIO (MIX OUT)
32
33 TUNER (N)
34
35 GND (AV)
36 EDIT TRIG Ⓛ
37 PRE ROLL Ⓗ
38
39
INPUT/OUTPUT PACK C.B.A (VEP04253A)
IC3001 AN3396
SP
LP
AMP
ENV DET
AMP
AUTO TRACK GAIN
C3030 50V1
VR3020 5KB
R3026 2200
R3027 10K
Q3007 2SD601 (FEEDBACK CONTROL)
C3032 6V47
C3033 0.01
C3031 0.01
R3028 3300
R3030 5600
C3034 0.22
L3010 100μ
1 REG 5V
2 CONV OUT
3 TEST ON Ⓗ
4 GND
5 VIDEO OUT
D3011 MA27W
L3611 100μ
L3612 100μ
FL3601 ELB4H020
R3632 1000
(PHASE COMPENSATOR)
Q3610 2SC2295
R3634 1500
R3633 3900
C3635 16V10
IC3602 BA7004
(TEST SIGNAL GENERATOR)
TEST SIG
OSC 500KHz
VCC
GND
C3636 16V10
R3635 1500
R3636 560
C3637 16V10
X3601 VSX0099
C3638 3300P
C3639 3300P
D3608 MA165
TEST SIGNAL PACK C.B.A (VEP03610A)

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS (　) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

O MAIN SIGNAL PATH IN REC MODE

O MAIN SIGNAL PATH IN PLAYBACK MODE

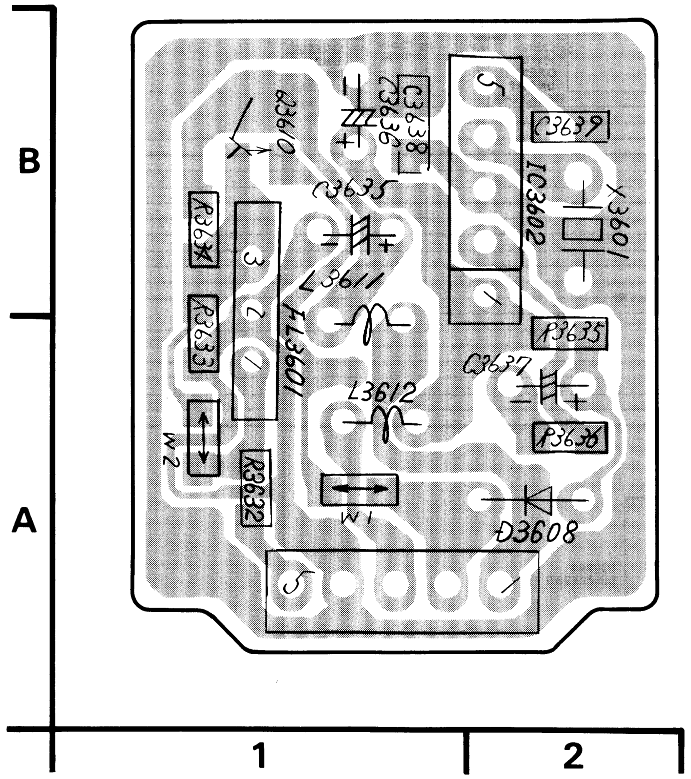

TO SERVO
ART V LP
ART V
ART V SP
TRACKING ENV.
TO POWER
SIMUL Ⓗ
LINE Ⓗ
TUNER Ⓗ
EDIT Ⓗ
UNREG -29V
REG 12.3V
REG 5V
TUNER 12V
VIDEO IN (VPS)
TO AUDIO
TUNER IN (V)
TUNER (L)
TUNER (R)
AUDIO IN (L)
AUDIO IN (R)
AUDIO OUT (L)
AUDIO OUT (R)
AUDIO IN (N)
TUNER (N)
GND (A)
CONV OUT
EE Ⓗ
QR3003
UN2111
Q3002
2SD636
(PLAY:ON)
QR3001
UN2212
(PLAY Ⓛ:OFF)
R3056
56K
R3006
3300
C3005
6V100
C3004
0.01
R3055
10K
L3001
100μ
R3001
470
C3002
6V470
TP3002
R3003
1K
Q3001
2SB641
(AMP)
D3010
MA165
Q3009
2SD601
(AV Ⓗ:ON)
R3004
47K
TO SYSTEM CTL
EDIT TRIG Ⓛ
PRE ROLL Ⓗ
TO POWER
POWER OFF MUTE Ⓛ
AV GND
QR3009
UN2213
(LINE Ⓗ:ON)
QR3011
UN2213
(AV Ⓗ: ON)
D3011
MA27W
1 ART V LP
2 ART V
3 ART V SP
4 REG 12.3V
5 GND (TUNER)
6 GND (SYS)
7 UNREG -29V
8 VIDEO IN
9
10 TUNER 12V
11 TUNER IN (V)
12 GND (V)
13 VIDEO OUT
14 EE Ⓗ AV
15
16 SIMUL Ⓗ
17 LINE Ⓗ
18 AV Ⓗ
19 TUNER (L)
20 TUNER (R)
21
22 TUNER Ⓗ
23
24 TEST ON Ⓗ
25 AUDIO IN (L)
26 AUDIO IN (R)
27 GND (AUDIO)
28 AUDIO OUT (L)
29 GND (AUDIO)
30 AUDIO OUT (R)
31 AUDIO (MIX OUT)
32
33 TUNER (N)
34
35 GND (AV)
36 EDIT TRIG Ⓛ
37 PRE ROLL Ⓗ
38
39
INPUT/OUTPUT PACK C.B.A (VEP04253A)
1 REG 5V
2 CONV OUT
3 TEST ON Ⓗ
4 GND
5 VIDEO OUT
L3611
100μ
L3612
100μ
IC3001
AN3396
SP
LP
AMP
ENV DET
AUTO TRACK GAIN
VR3020
5KB
C3030
50V1
Q3007
2SD601
(FEEDBACK CONTROL)
R3026
2200
R3027
10K
C3032
6V47
R3028
3300
C3033
0.01
C3031
0.01
L3010
100μ
R3030
5600
C3034
0.22
C3029
0.01
R3060
1K
FL3601 ELB4H020
R3632
1000
(PHASE COMPENSATOR)
Q3610
2SC2295
R3634
1500
R3633
3900
C3635
16V10
IC3602
BA7004
(TEST SIGNAL GENERATOR)
TEST SIG
OSC 500KHz
VCC
GND
C3636
16V10
R3635
1500
R3636
560
C3637
16V10
X3601
VSX0099
C3639
3300P
C3638
3300P
D3608
MA165
TEST SIGNAL PACK C.B.A (VEP03610A)
7
8
9
10

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-13. TEST SIGNAL PACK C.B.A. (VEP03610A)

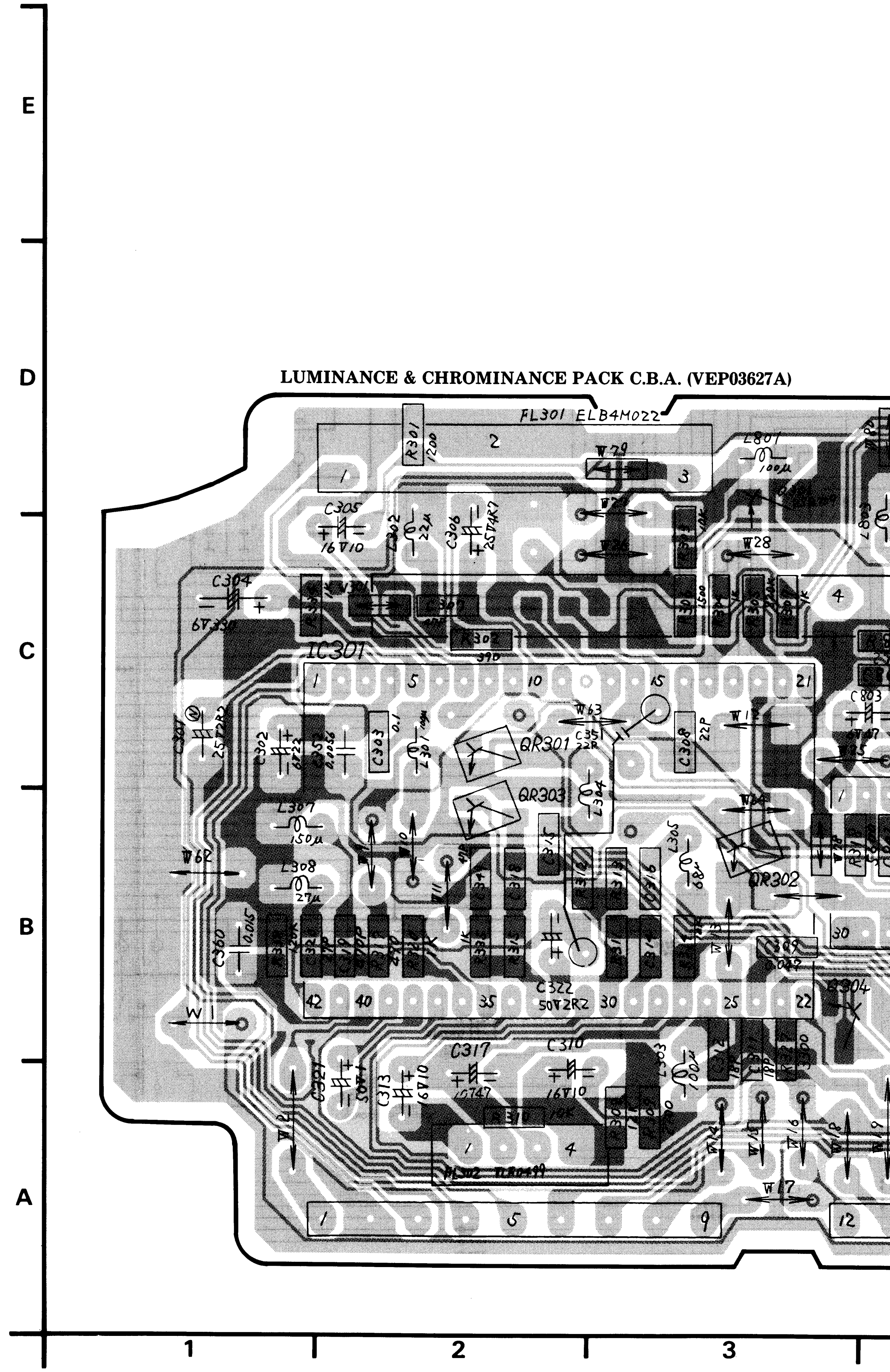
TEST SIGNAL PACK C.B.A.	
Transistor	
Q3601	B-1
Integrated Circuit	
IC3601	B-2

ADDRESS INFORMATION


B
A
1
2
C3638
C3636
C3639
IC3602
X3601
Q3610
C3635
L3611
FL3601
R3634
R3633
R3632
L3612
C3637
R3635
R3636
W1
W2
D3608

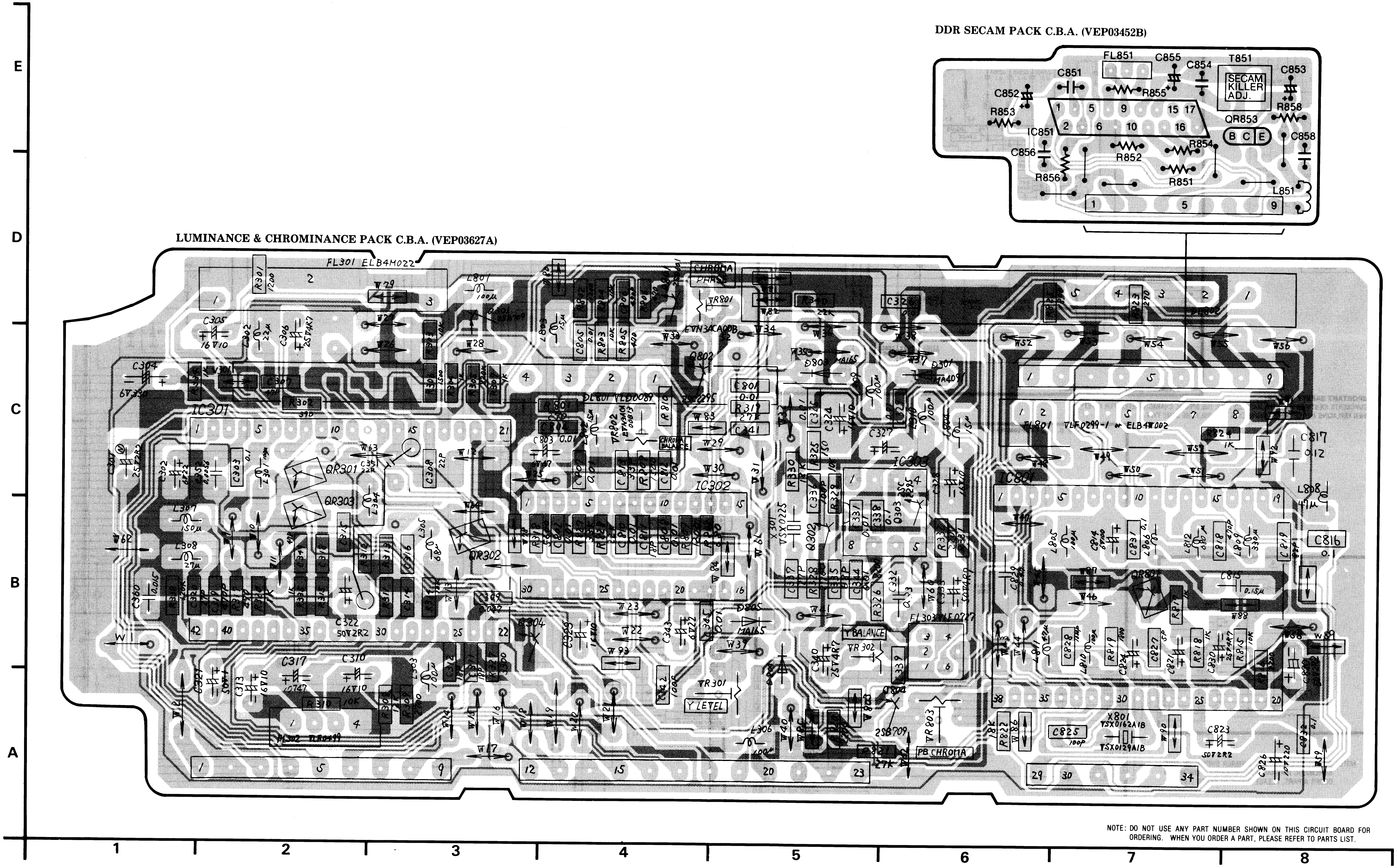
3-14. LUMINANCE & CHROMINANCE PACK C.B.A. (VEP036

LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627A)


E
D
C
B
A
1
2
3
FL301 ELB4M022
R301
L801
C305
C306
C304
IC301
QR301
QR303
QR302
C302
C303
C308
L307
L308
L305
C322
C317
C310
C313
C360
FL302
W28
W62
W63

.A.

3-14. LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627A)


DDR SECAM PACK C.B.A. (VEP03452B)

LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627A)

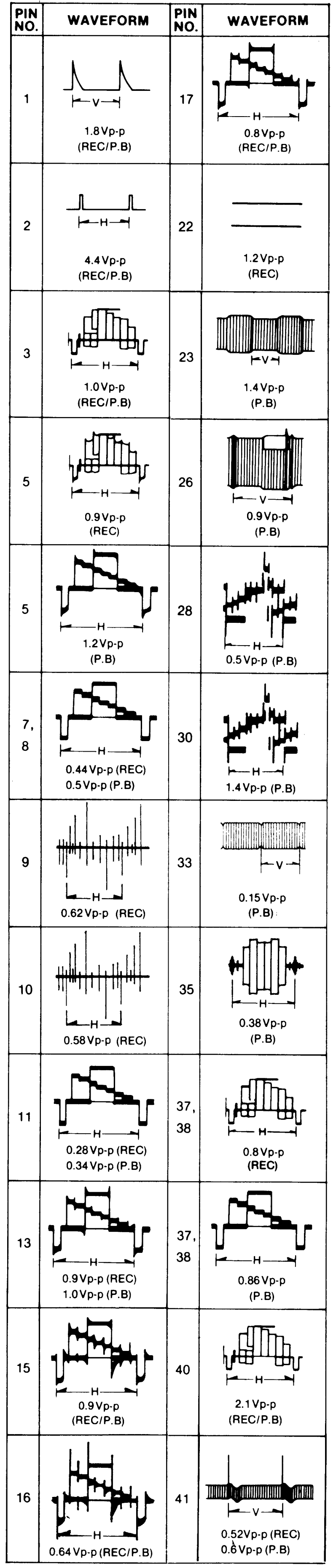
E
D
C
B
A
1
2
3
4
5
6
7
8
FL851
C855
C854
T851
C853
C851
C852
R855
SECAM KILLER ADJ.
R853
R858
IC851
QR853
C858
C856
R852
R854
R856
R851
L851
FL301 ELB4M022
L801
CHROMA PHASE
VR801
EVN3ACA00B
IC301
QR301
QR303
QR302
IC302
IC303
IC801
DL801 VLD0087
VR802
CHROMA BALANCE
FL801 VLF0299-1 or ELB4W002
X301 VSX0225
Q302
Q303
Q304
Q801
Q802
D801
D802
D805
Y BALANCE
VR302
VR301
Y LEVEL
VR803
PB CHROMA
2SB709
FL302
FL303
X801 VSX0162A1B VSX0129A1B
C816
C817
L808
C823
C825
C826
C304
C305
C306
C317
C310
C322
L306
L307
L308
W1
W62

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

LUMINANCE & CHROMINANCE PACK C.B.A.	
Transistor	
Q301	D-3
Q302	B-5
Q303	B-6
Q304	B-3
Q801	D-4
Q802	C-4
Q804	A-6
Transistor & Resistor	
QR301	C-2
QR302	B-3
QR303	B-2
QR801	B-7
QR853	E-8
Integrated Circuit	
IC301	C-2
IC302	C-4
IC303	C-6
IC801	C-6
IC851	E-6
Adjustment	
VR301	A-5
VR302	B-5
VR801	D-4
VR802	C-4
VR803	A-6
T851	E-6

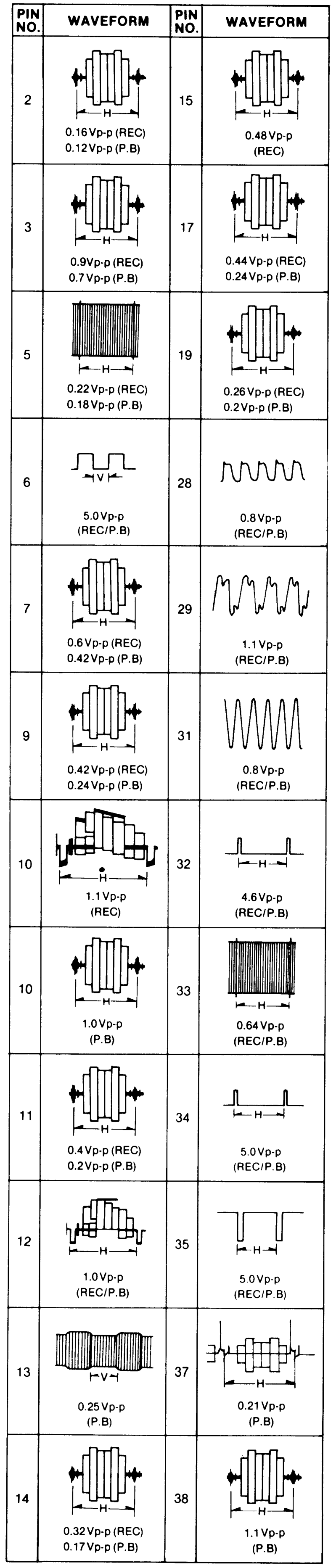
ADDRESS INFORMATION

IC301 (VEFH03D)



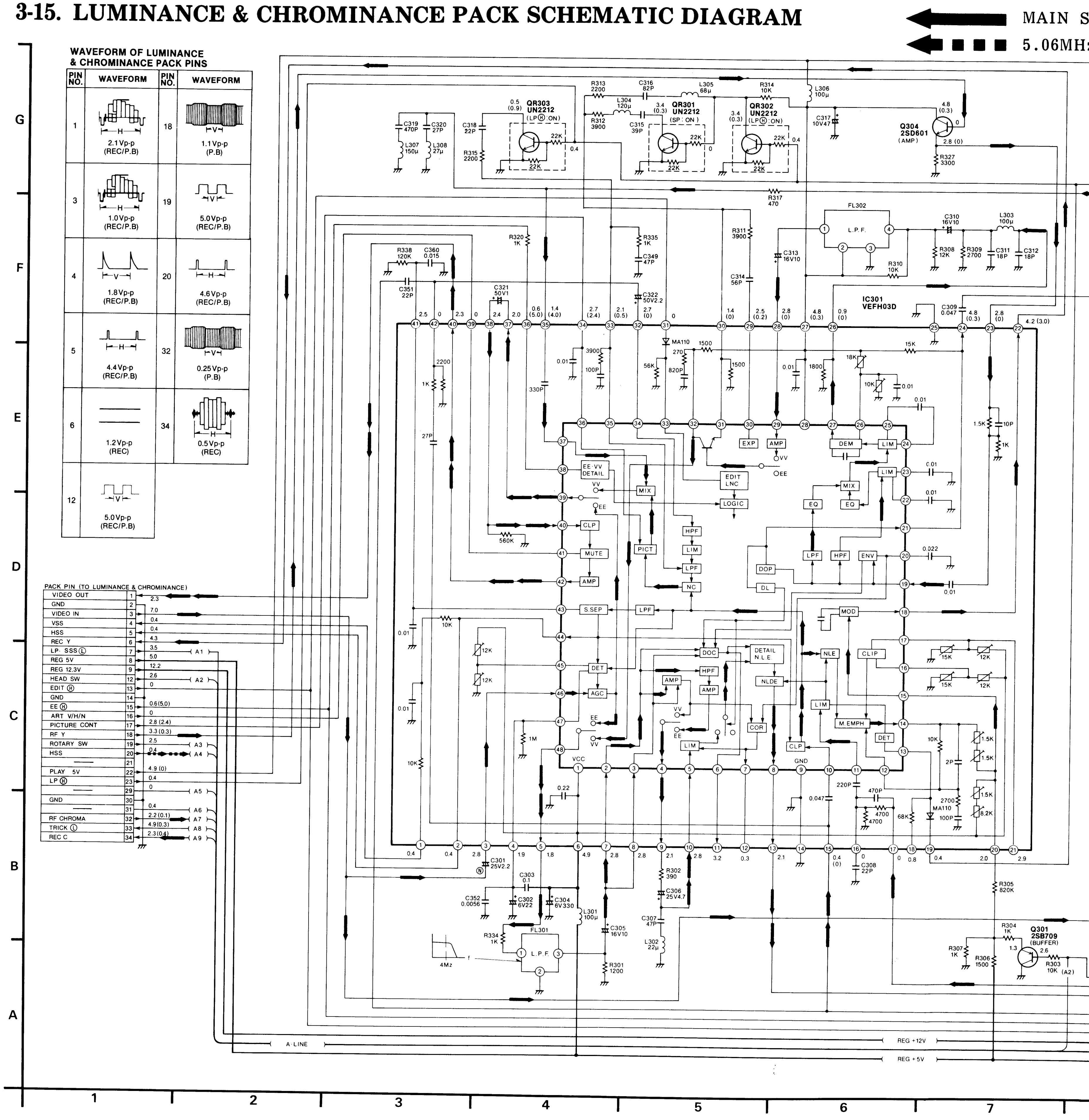
PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	V 1.8Vp-p (REC/P.B)	17	H 0.8Vp-p (REC/P.B)
2	H 4.4Vp-p (REC/P.B)	22	1.2Vp-p (REC)
3	H 1.0Vp-p (REC/P.B)	23	V 1.4Vp-p (P.B)
5	H 0.9Vp-p (REC)	26	V 0.9Vp-p (P.B)
5	H 1.2Vp-p (P.B)	28	H 0.5Vp-p (P.B)
7, 8	H 0.44Vp-p (REC) 0.5Vp-p (P.B)	30	H 1.4Vp-p (P.B)
9	H 0.62Vp-p (REC)	33	V 0.15Vp-p (P.B)
10	H 0.58Vp-p (REC)	35	H 0.38Vp-p (P.B)
11	H 0.28Vp-p (REC) 0.34Vp-p (P.B)	37, 38	H 0.8Vp-p (REC)
13	H 0.9Vp-p (REC) 1.0Vp-p (P.B)	37, 38	H 0.86Vp-p (P.B)
15	H 0.9Vp-p (REC/P.B)	40	H 2.1Vp-p (REC/P.B)
16	H 0.64Vp-p (REC/P.B)	41	V 0.52Vp-p (REC) 0.6Vp-p (P.B)

IC801 (VEFH04A)



PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
2	H 0.16Vp-p (REC) 0.12Vp-p (P.B)	15	H 0.48Vp-p (REC)
3	H 0.9Vp-p (REC) 0.7Vp-p (P.B)	17	H 0.44Vp-p (REC) 0.24Vp-p (P.B)
5	H 0.22Vp-p (REC) 0.18Vp-p (P.B)	19	H 0.26Vp-p (REC) 0.2Vp-p (P.B)
6	V 5.0Vp-p (REC/P.B)	28	0.8Vp-p (REC/P.B)
7	H 0.6Vp-p (REC) 0.42Vp-p (P.B)	29	1.1Vp-p (REC/P.B)
9	H 0.42Vp-p (REC) 0.24Vp-p (P.B)	31	0.8Vp-p (REC/P.B)
10	H 1.1Vp-p (REC)	32	H 4.6Vp-p (REC/P.B)
10	H 1.0Vp-p (P.B)	33	H 0.64Vp-p (REC/P.B)
11	H 0.4Vp-p (REC) 0.2Vp-p (P.B)	34	H 5.0Vp-p (REC/P.B)
12	H 1.0Vp-p (REC/P.B)	35	H 5.0Vp-p (REC/P.B)
13	V 0.25Vp-p (P.B)	37	H 0.21Vp-p (P.B)
14	H 0.32Vp-p (REC) 0.17Vp-p (P.B)	38	H 1.1Vp-p (P.B)

3-15. LUMINANCE & CHROMINANCE PACK SCHEMATIC DIAGRAM


MAIN S
5.06MH
G
F
E
D
C
B
A
1
2
3
4
5
6
7
PACK PIN (TO LUMINANCE & CHROMINANCE)
VIDEO OUT 1 2.3
GND 2
VIDEO IN 3 7.0
VSS 4 0.4
HSS 5 0.4
REC Y 6 4.3
LP· SSS Ⓛ 7 3.5 A1
REG 5V 8 5.0
REG 12.3V 9 12.2
HEAD SW 12 2.6 A2
EDIT Ⓗ 13 0
GND 14
EE Ⓗ 15 0.6(5.0)
ART V/H/N 16 0
PICTURE CONT 17 2.8 (2.4)
RF Y 18 3.3 (0.3)
ROTARY SW 19 2.5 A3
HSS 20 0.4 A4
21
PLAY 5V 22 4.9 (0)
LP Ⓗ 23 0.4
29 0 A5
GND 30
31 0.4 A6
RF CHROMA 32 2.2 (0.1) A7
TRICK Ⓛ 33 4.9(0.3) A8
REC C 34 2.3(0.4) A9
A-LINE
REG +12V
REG +5V
IC301
VEFH03D
QR303
UN2212
(LPⒽ:ON)
QR301
UN2212
(SP : ON)
QR302
UN2212
(LPⒽ:ON)
Q304
2SD601
(AMP)
Q301
2SB709
(BUFFER)
FL302
L.P.F.
FL301
L.P.F.
4Mz
f
C319 470P
C320 27P
L307 150μ
L308 27μ
C318 22P
R315 2200
R313 2200
C316 82P
L305 68μ
R314 10K
L306 100μ
L304 120μ
R312 3900
C315 39P
C317 10V47
R327 3300
R317 470
R320 1K
R335 1K
C349 47P
R311 3900
C313 16V10
C314 56P
C310 16V10
L303 100μ
R308 12K
R309 2700
C311 18P
C312 18P
R310 10K
R338 120K
C360 0.015
C351 22P
C321 50V1
C322 50V2.2
C309 0.047
MA110
C301 25V2.2
C303 0.1
C352 0.0056
C302 6V22
C304 6V330
L301 100μ
R334 1K
C305 16V10
R301 1200
R302 390
C306 25V4.7
C307 47P
L302 22μ
C308 22P
R305 820K
R304 1K
R307 1K
R306 1500
R303 10K
(A2)
EE VV DETAIL
MIX
LOGIC
EDIT LNC
EXP
AMP
DEM
LIM
EQ
CLP
MUTE
PICT
HPF
LPF
NC
DOP
DL
ENV
S.SEP
MOD
DOC
DETAIL N.L.E.
NLE
CLIP
DET
AGC
NLDE
COR
M.EMPH
VCC
GND
EE
VV

WAVEFORM OF LUMINANCE & CHROMINANCE PACK PINS

PIN NO.	WAVEFORM	PIN NO.	WAVEFORM
1	H 2.1Vp-p (REC/P.B)	18	V 1.1Vp-p (P.B)
3	H 1.0Vp-p (REC/P.B)	19	V 5.0Vp-p (REC/P.B)
4	V 1.8Vp-p (REC/P.B)	20	H 4.6Vp-p (REC/P.B)
5	H 4.4Vp-p (REC/P.B)	32	V 0.25Vp-p (P.B)
6	1.2Vp-p (REC)	34	H 0.5Vp-p (REC)
12	V 5.0Vp-p (REC/P.B)		

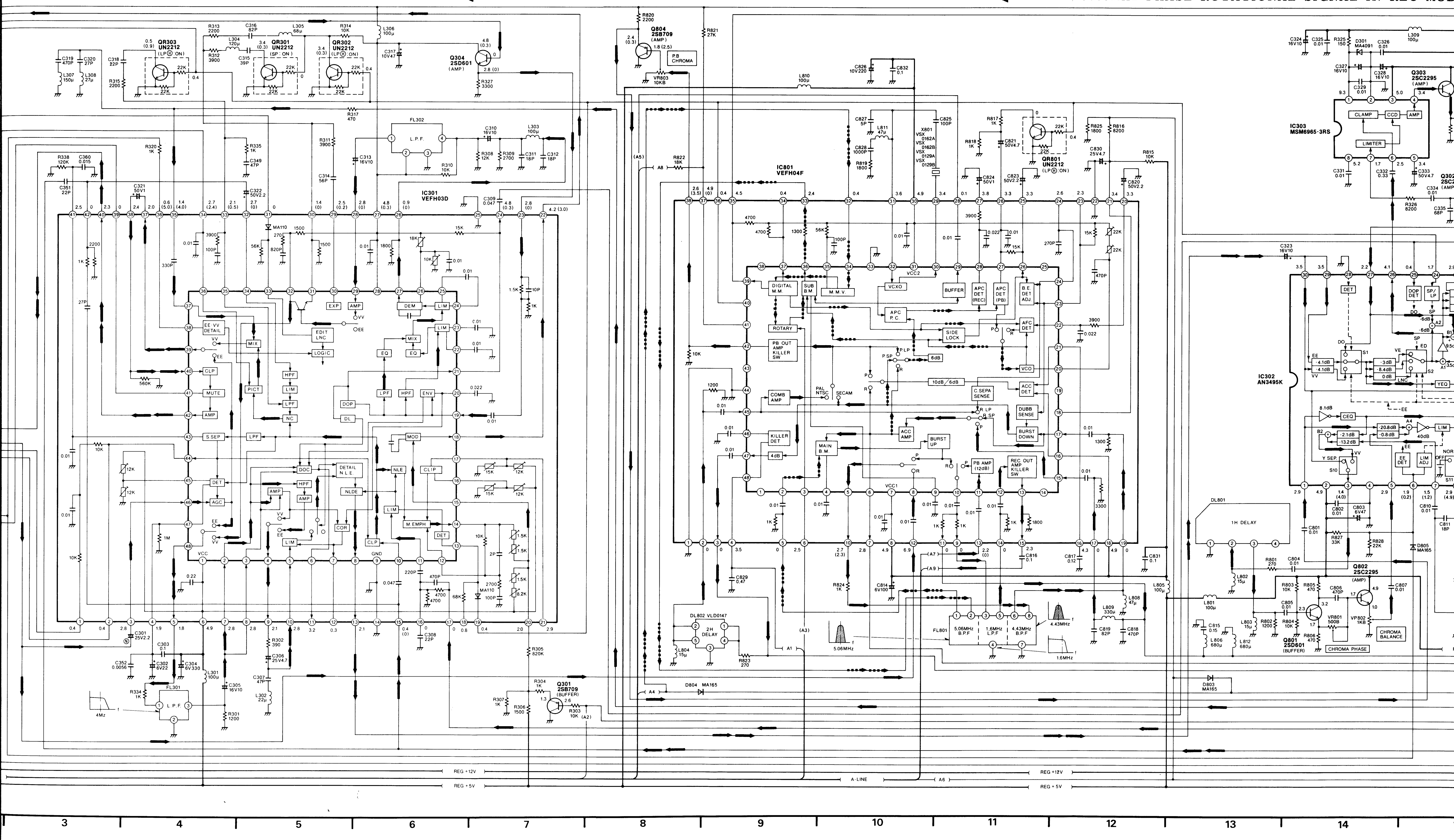
MINANCE PACK SCHEMATIC DIAGRAM

MAIN SIGNAL PATH IN PLAYBACK MODE

5.06MHz PHASE ROTATIONAL SIGNAL IN PLAYBACK MODE

MAIN SIGNAL PATH IN REC MODE

5.06MHz PHASE ROTATIONAL SIGNAL IN REC MOD

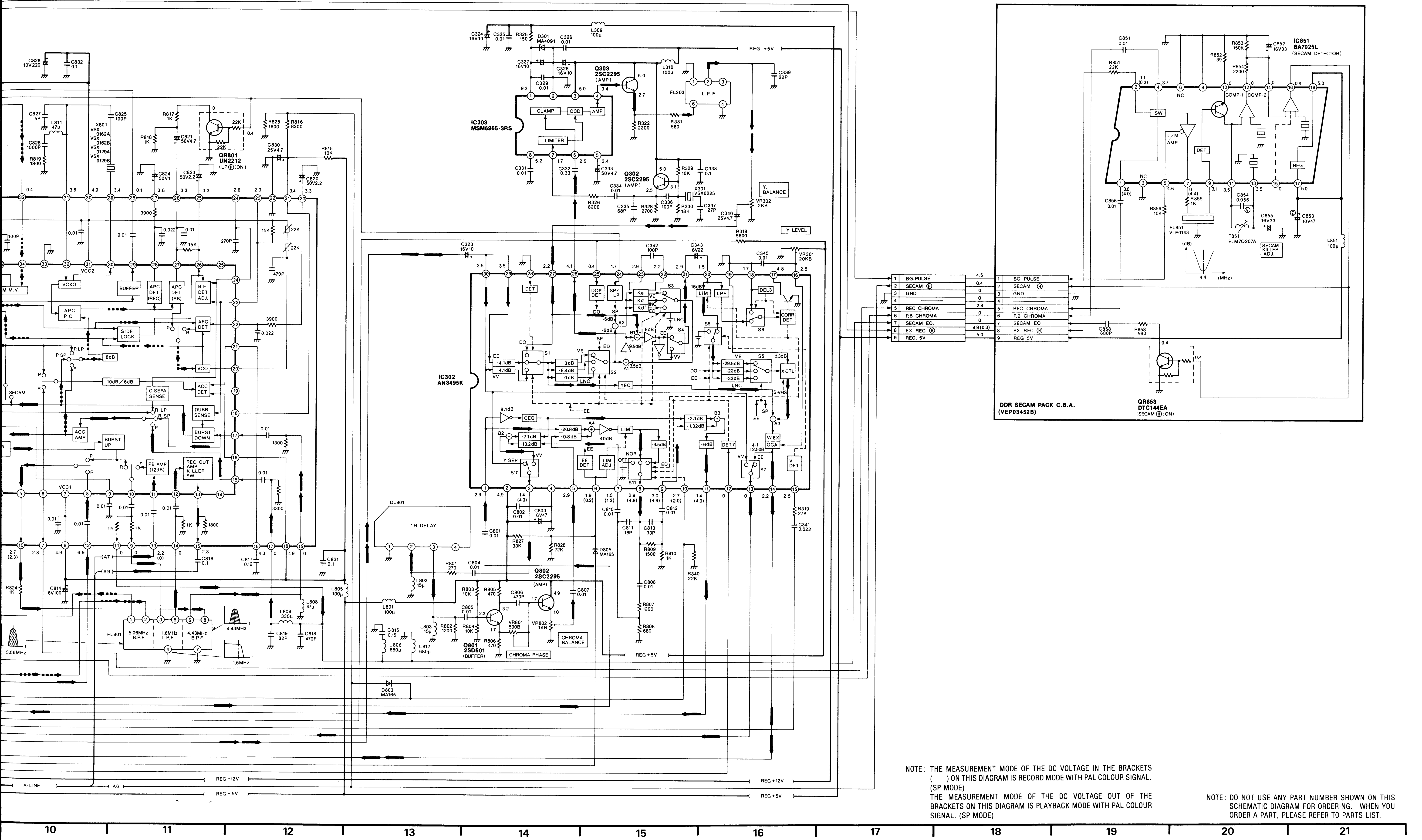

QR303 UN2212 (LP(R)·ON)
QR301 UN2212 (SP·ON)
QR302 UN2212 (LP(R)·ON)
Q304 2SD601 (AMP)
Q804 2SB709 (AMP)
PB CHROMA
VR803 10KB
FL302 L.P.F.
IC301 VEFH03D
IC801 VEFH04F
QR801 UN2212 (LP(R)·ON)
IC303 MSM6965-3RS
CLAMP
CCD
AMP
LIMITER
Q303 2SC2295 (AMP)
IC302 AN3495K
DL801 1H DELAY
DL802 VLD0147 2H DELAY
FL801 5.06MHz B.P.F 1.6MHz L.P.F 4.43MHz B.P.F
5.06MHz
4.43MHz
1.6MHz
Q802 2SC2295 (AMP)
Q801 2SD601 (BUFFER)
VR801 500B
VP802 1KB
CHROMA PHASE
CHROMA BALANCE
Q301 2SB709 (BUFFER)
FL301 L.P.F
4Mz
D804 MA165
D803 MA165
DIGITAL M.M.
SUB B.M.
M.M.V.
VCXO
BUFFER
APC DET (REC)
APC DET (PB)
B.E DET ADJ
ROTARY
APC P.C.
SIDE LOCK
AFC DET
PB OUT AMP KILLER SW
VCO
COMB AMP
PAL NTSC SECAM
C SEPA SENSE
ACC DET
DUBB SENSE
BURST DOWN
ACC AMP
BURST UP
KILLER DET
MAIN B.M.
PB AMP (12dB)
REC OUT AMP KILLER SW
EE VV DETAIL
MIX
LOGIC
EDIT LNC
CLP
MUTE
AMP
S SEP
LPF
PICT
HPF
LIM
NC
DET
AGC
DOC
DETAIL N.L.E.
NLE
NLDE
CLIP
COR
M.EMPH
EXP
DEM
EQ
ENV
DOP
DL
MOD
REG +12V
REG +5V
A-LINE
3
4
5
6
7
8
9
10
11
12
13
14

DE

IN PLAYBACK MODE

MAIN SIGNAL PATH IN REC MODE

5.06MHz PHASE ROTATIONAL SIGNAL IN REC MODE

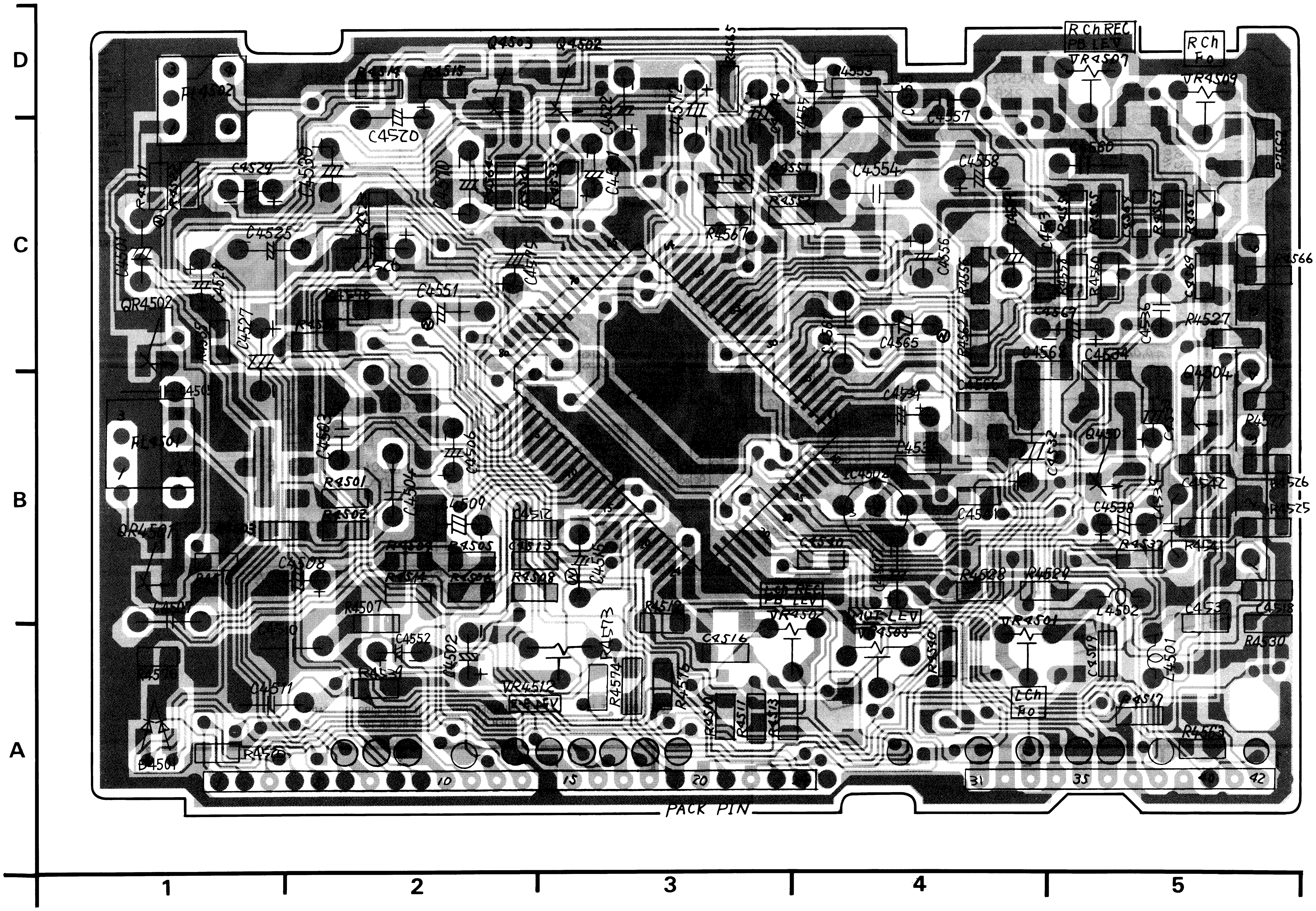

IC303
MSM6965-3RS
CLAMP
CCD
AMP
LIMITER
Q303
2SC2295
(AMP)
Q302
2SC2295
(AMP)
FL303
L.P.F.
Y. BALANCE
VR302
2KB
Y. LEVEL
REG +5V
QR801
UN2212
(LP Ⓗ:ON)
IC302
AN3495K
VCXO
BUFFER
APC DET (REC)
APC DET (PB)
B.E. DET ADJ.
APC P.C
SIDE LOCK
AFC DET
VCO
C.SEPA SENSE
ACC DET
DUBB SENSE
BURST DOWN
ACC AMP
BURST UP
PB AMP (12dB)
REC OUT AMP KILLER SW
VCC1
VCC2
SECAM
DL801
1H DELAY
FL801
5.06MHz B.P.F
1.6MHz L.P.F
4.43MHz B.P.F
4.43MHz
5.06MHz
1.6MHz
Q801
2SD601
(BUFFER)
Q802
2SC2295
(AMP)
VR801
500B
VP802
1KB
CHROMA PHASE
CHROMA BALANCE
D803
MA165
D805
MA165
DOP DET
SP/LP
CEQ
LIM
LPF
DEL3
CORR DET
X.CTL
W.EX GCA
V. DET
EE DET
LIM ADJ
NOR
YEQ
S-VHS
1 BG.PULSE
2 SECAM Ⓗ
3 GND
4
5 REC CHROMA
6 P.B CHROMA
7 SECAM EQ.
8 EX. REC Ⓗ
9 REG. 5V
IC851
BA7025L
(SECAM DETECTOR)
SW
L/M AMP
DET
COMP-1
COMP-2
REG
SECAM KILLER ADJ.
FL851
VLF0143
T851
ELM7Q207A
DDR SECAM PACK C.B.A.
(VEP03452B)
QR853
DTC144EA
(SECAM Ⓗ:ON)
A-LINE
A6
REG +12V
REG + 5V
10
11
12
13
14
15
16
17
18
19
20
21

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Next Page:
AUDIO & Hi-Fi AUDIO PACK Section

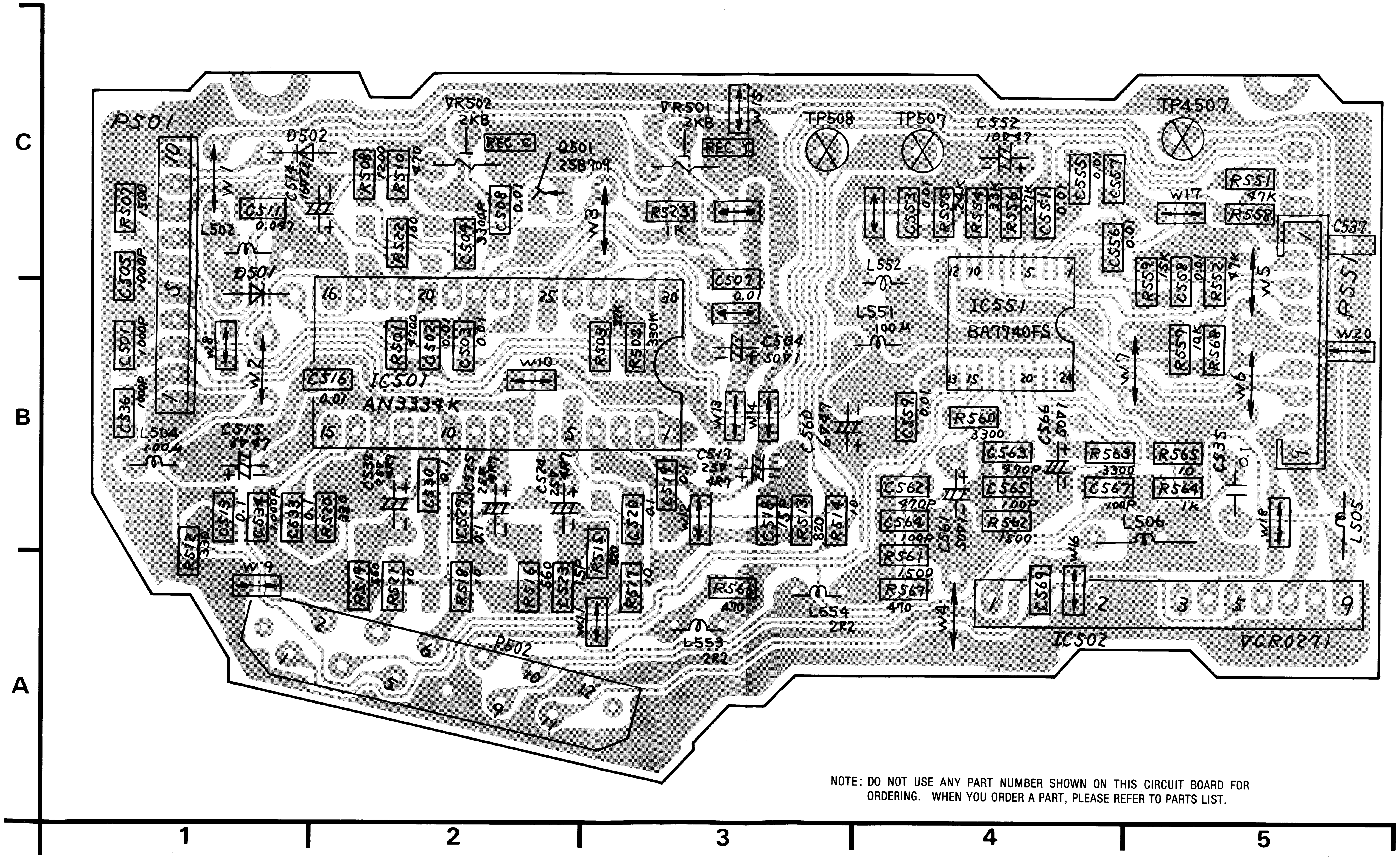
3-17. Hi-Fi AUDIO PACK C.B.A. (VEP04242C)


D
C
B
A
1
2
3
4
5
PACK PIN
10
15
20
31
35
42
R Ch REC
PB LEV
VR4507
R Ch
F o
VR4509
Q4503
Q4502
R4514
R4515
RL4502
C4520
C4529
C4530
C4525
C4551
QR4502
C4527
C4554
C4558
C4557
C4553
R4567
C4565
C4556
C4568
C4534
R4527
Q4504
R4566
RL4501
QR4501
R4501
R4502
C4509
C4512
C4513
R4505
R4508
C4508
R4507
C4552
C4502
VR4512
R4574
R4573
C4516
VR4502
PB REC
PB LEV
VR4505
MUT LEV
VR4501
R4528
R4529
L4502
L4501
C4519
L Ch
F o
R4512
R4563
R4530
C4518
C4533
C4538
R4532
R4541
R4526
R4525
IC4502
C4531
C4510
C4511
R4536
D4501
R4520

Hi-Fi AUDIO PACK C.B.A.	
Transistor	
Q4501	B-5
Q4502	D-3
Q4503	D-2
Q4504	B-5
Transistor & Resistor	
QR4501	B-1
QR4502	C-1
Integrated Circuit	
IC4501	B-3
IC4502	B-4
Adjustment	
VR4501	A-4
VR4502	B-4
VR4505	A-4
VR4507	D-5
VR4509	D-5
VR4512	A-3

ADDRESS INFORMATION

3-18. HEAD AMP C.B.A. (VEP05134B)


C
B
A
1
2
3
4
5
P501
D502
VR502
2KB
REC C
Q501
2SB709
VR501
2KB
REC Y
W15
TP508
TP507
C552
10V47
TP4507
R507
1500
C505
1000P
C501
1000P
C536
1000P
W1
C514
16V22
R508
1200
R510
470
C511
0.047
L502
R522
100
C509
3300P
C508
0.01
W3
R523
1K
C507
0.01
C504
50V1
D501
W8
W2
C516
0.01
IC501
AN3334K
R501
4700
C502
0.01
C503
0.01
W10
R503
22K
R502
330K
L504
100μ
C515
6V47
C513
0.1
C534
1000P
C533
0.1
R520
330
R512
330
W9
C532
25V
4R7
C530
0.1
C525
25V
4R7
C527
0.1
C524
25V
4R7
C520
0.1
C519
0.1
C517
25V
4R7
W12
W13
W14
C560
6V47
R519
560
R521
10
R518
10
R516
560
C523
15P
R515
820
R517
10
W11
C518
15P
R513
820
R514
10
R565
470
L553
2R2
L554
2R2
P502
L552
L551
100μ
IC551
BA7740FS
C559
0.01
R560
3300
C553
0.01
R555
24K
R554
33K
R556
27K
C551
0.01
C555
0.01
C557
0.01
C556
0.01
W17
R551
47K
R558
C537
R559
15K
C558
0.01
R552
47K
W5
P551
W20
R557
10K
R568
10K
W7
W6
C566
50V1
C563
470P
R563
3300
R565
10
C535
0.1
C562
470P
C565
100P
C567
100P
R564
1K
C564
100P
C561
50V1
R562
1500
R561
1500
R567
470
L506
W16
W18
L505
W4
C569
IC502
VCR0271
1
2
3
5
6
9
10
11
12

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

HEAD AMP C.B.A.	
Transistor	
Q501	C-2
Integrated Circuit	
IC501	B-2
IC502	A-4
IC551	B-4
Test Point	
TP507	C-4
TP508	C-3
TP4507	C-5
Adjustment	
VR501	C-3
VR502	C-2
Connector	
P501	C-1
P502	A-2
P551	B-5

ADDRESS INFORMATION

Back Page:
Hi-Fi AUDIO PACK Section

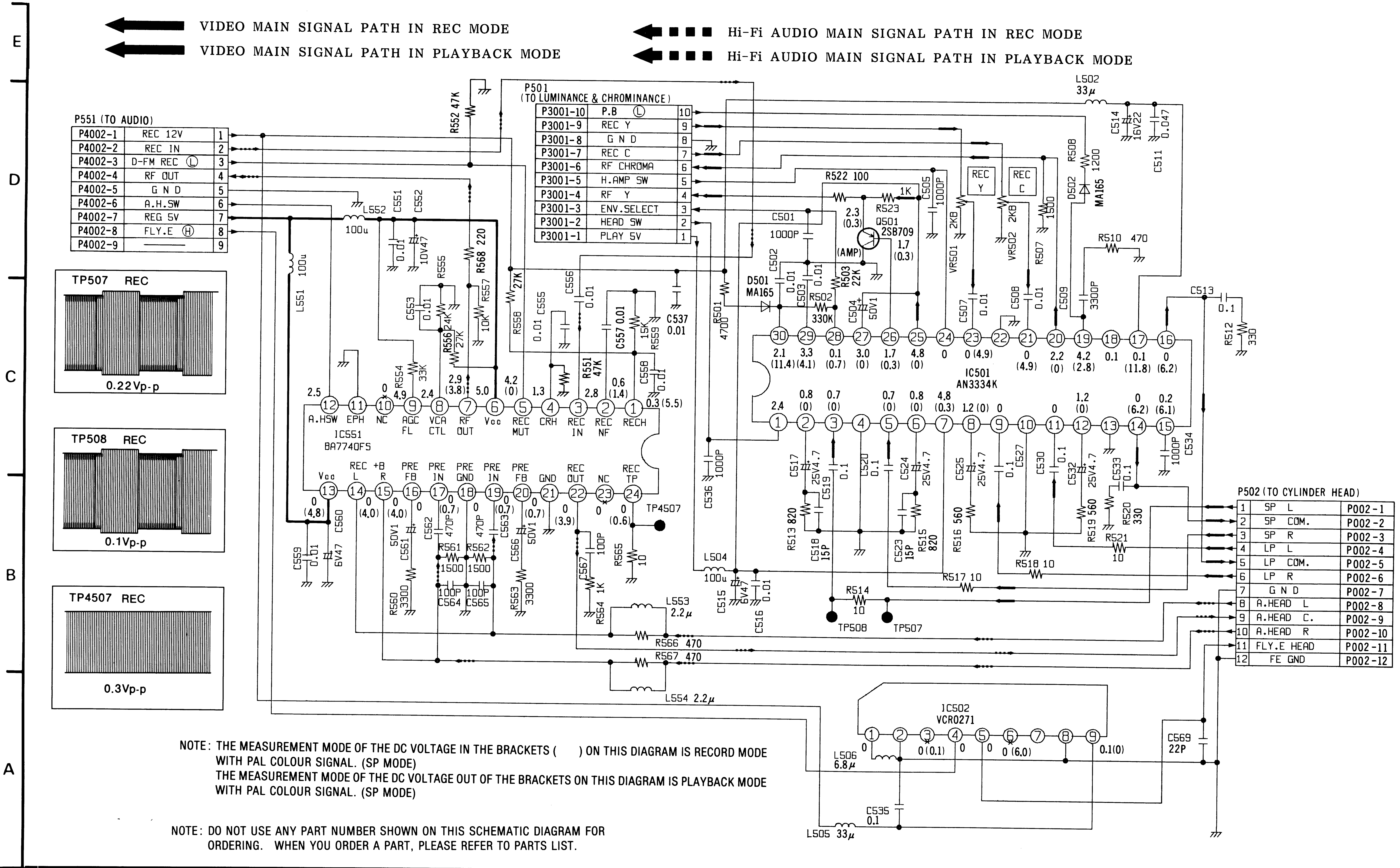
3-19. HEAD AMP SCHEMATIC DIAGRAM

VIDEO MAIN SIGNAL PATH IN REC MODE

VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

Hi-Fi AUDIO MAIN SIGNAL PATH IN REC MODE

Hi-Fi AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

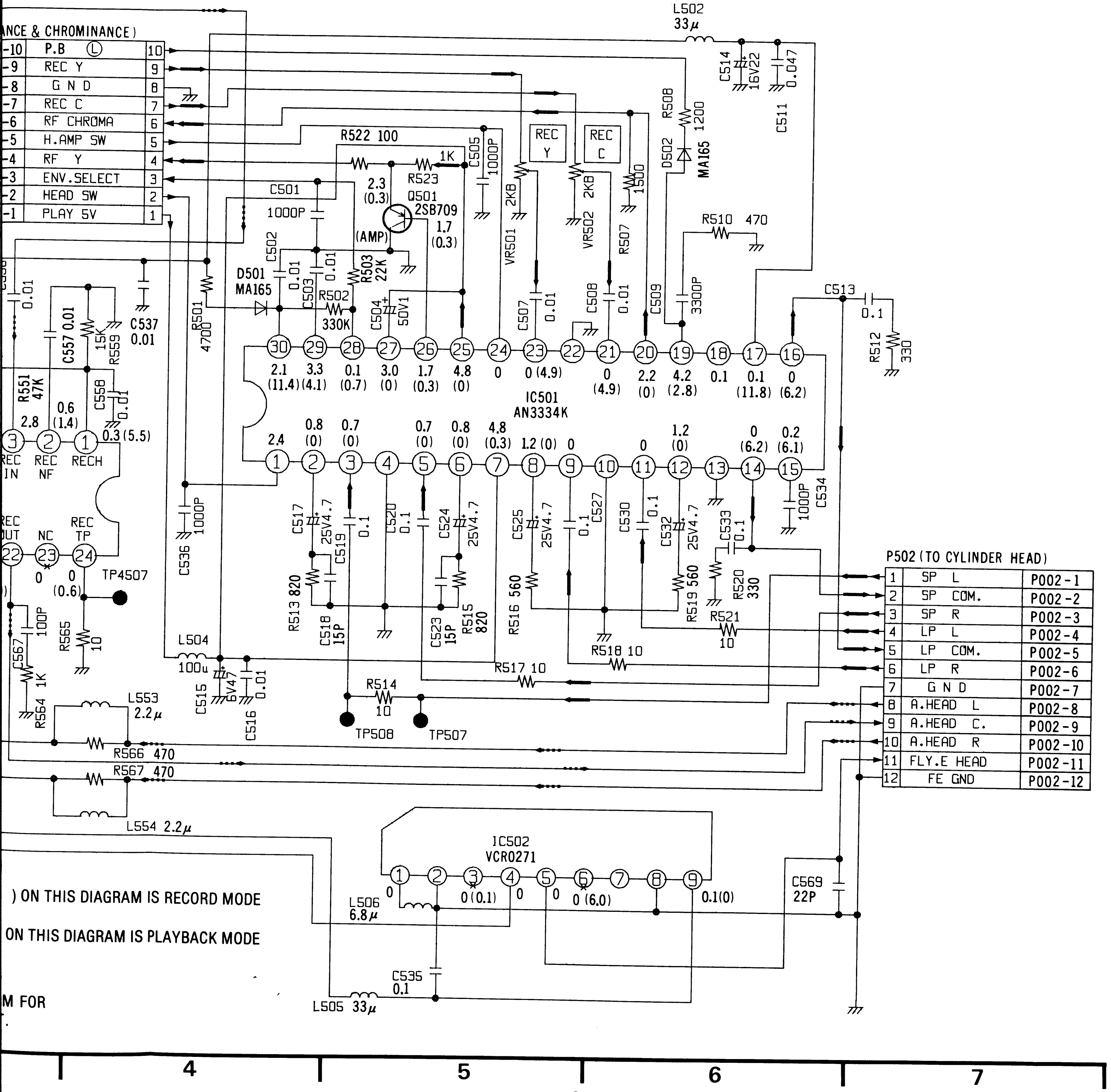

E
D
C
B
A
P551 (TO AUDIO)
P4002-1 REC 12V 1
P4002-2 REC IN 2
P4002-3 D-FM REC Ⓛ 3
P4002-4 RF OUT 4
P4002-5 GND 5
P4002-6 A.H.SW 6
P4002-7 REG 5V 7
P4002-8 FLY.E Ⓗ 8
P4002-9 — 9
P501 (TO LUMINANCE & CHROMINANCE)
P3001-10 P.B Ⓛ 10
P3001-9 REC Y 9
P3001-8 GND 8
P3001-7 REC C 7
P3001-6 RF CHROMA 6
P3001-5 H.AMP SW 5
P3001-4 RF Y 4
P3001-3 ENV.SELECT 3
P3001-2 HEAD SW 2
P3001-1 PLAY 5V 1
TP507 REC
0.22Vp-p
TP508 REC
0.1Vp-p
TP4507 REC
0.3Vp-p
IC551 BA7740FS
A.HSW EPH NC AGC FL VCA CTL RF OUT Vcc REC MUT CRH REC IN REC NF RECH
Vcc REC L +B R PRE FB PRE IN PRE GND PRE IN PRE FB GND REC OUT NC REC TP
IC501 AN3334K
Q501 2SB709 (AMP)
IC502 VCR0271
R552 47K
L552 100u
L551 100u
C551 0.01
C552 10V47
R555
R568 220
R557 10K
C553 0.01
R556 24K 27K
R554 33K
R558 27K
C555 0.01
C556 0.01
C557 0.01
R559 15K
C537 0.01
R551 47K
C558 0.01
C559 0.01
C560 6V47
C561 50V1
C562 470P
C563 470P
C566 50V1
R560 3300
R561 1500
R562 1500
C564 100P
C565 100P
R563 3300
C567 100P
R564 1K
R565 10
TP4507
L553 2.2μ
R566 470
R567 470
L554 2.2μ
L504 100u
C515 6V47
C516 0.01
C536 1000P
R501 4700
D501 MA165
C501 1000P
C502 0.01
C503 0.01
R502 330K
R503 22K
C504 50V1
R522 100
R523 1K
C505 1000P
VR501 2KB
REC Y
REC C
VR502 2KB
R507 1500
D502 MA165
R508 1200
L502 33μ
C514 16V22
C511 0.047
R510 470
C507 0.01
C508 0.01
C509 3300P
C513 0.1
R512 330
C517 25V4.7
C519 0.1
R513 820
C518 15P
C520 0.1
C524 25V4.7
C523 15P
R515 820
C525 25V4.7
C527 0.1
R516 560
C530 0.1
C532 25V4.7
C533 0.1
R519 560
R520 330
R521 10
C534 1000P
R518 10
R517 10
R514 10
TP508
TP507
P502 (TO CYLINDER HEAD)
1 SP L P002-1
2 SP COM. P002-2
3 SP R P002-3
4 LP L P002-4
5 LP COM. P002-5
6 LP R P002-6
7 GND P002-7
8 A.HEAD L P002-8
9 A.HEAD C. P002-9
10 A.HEAD R P002-10
11 FLY.E HEAD P002-11
12 FE GND P002-12
L506 6.8μ
C535 0.1
L505 33μ
C569 22P
1
2
3
4
5
6
7

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

◀■ ■ ■ Hi-Fi AUDIO MAIN SIGNAL PATH IN REC MODE

◀■ ■ ■ Hi-Fi AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE


NCE & CHROMINANCE)
-10 P.B Ⓛ 10
-9 REC Y 9
-8 GND 8
-7 REC C 7
-6 RF CHROMA 6
-5 H.AMP SW 5
-4 RF Y 4
-3 ENV.SELECT 3
-2 HEAD SW 2
-1 PLAY 5V 1
L502 33μ
C514 16V22
C511 0.047
R508 1200
D502 MA165
R522 100
C505 1000P
REC Y
REC C
1K
R523
2.3 (0.3)
Q501 2SB709
(AMP)
1.7 (0.3)
C501 1000P
C502 0.01
C503 0.01
R503 22K
R502 330K
C504 50V1
D501 MA165
R501 4700
VR501 2KB
VR502 2KB
R507 1500
R510 470
C507 0.01
C508 0.01
C509 3300P
C513 0.1
R512 330
C557 0.01
R559 15K
C537 0.01
R551 47K
C558 0.01
IC501 AN3334K
2.1 (11.4) 3.3 (4.1) 0.1 (0.7) 3.0 (0) 1.7 (0.3) 4.8 (0) 0 0 (4.9) 0 (4.9) 2.2 (0) 4.2 (2.8) 0.1 0.1 (11.8) 0 (6.2)
2.4 0.8 (0) 0.7 (0) 0.7 (0) 0.8 (0) 4.8 (0.3) 1.2 (0) 0 0 1.2 (0) 0 (6.2) 0.2 (6.1)
2.8 0.6 (1.4) 0.3 (5.5)
REC IN REC NF RECH
REC OUT NC REC TP
0 0 (0.6)
TP4507
C536 1000P
C534 1000P
C517 25V4.7
C519 0.1
C520 0.1
C524 25V4.7
C525 25V4.7
C527 0.1
C530 0.1
C532 25V4.7
C533 0.1
R513 820
C518 15P
C523 15P
R515 820
R516 560
R519 560
R520 330
R521 10
R518 10
R517 10
R514 10
TP508 TP507
L504 100μ
C515 6V47
C516 0.01
C567 100P
R565 10
R564 1K
L553 2.2μ
R566 470
R567 470
L554 2.2μ
P502 (TO CYLINDER HEAD)
1 SP L P002-1
2 SP COM. P002-2
3 SP R P002-3
4 LP L P002-4
5 LP COM. P002-5
6 LP R P002-6
7 GND P002-7
8 A.HEAD L P002-8
9 A.HEAD C. P002-9
10 A.HEAD R P002-10
11 FLY.E HEAD P002-11
12 FE GND P002-12
IC502 VCR0271
0 0 (0.1) 0 0 0 (6.0) 0.1 (0)
L506 6.8μ
C569 22P
C535 0.1
L505 33μ
4
5
6
7

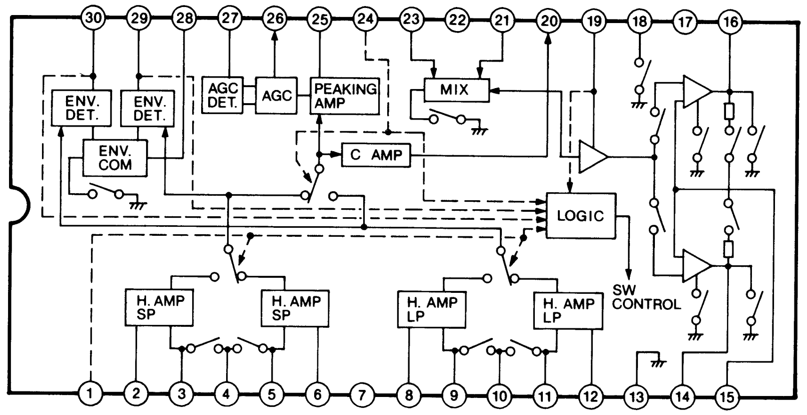
) ON THIS DIAGRAM IS RECORD MODE

ON THIS DIAGRAM IS PLAYBACK MODE

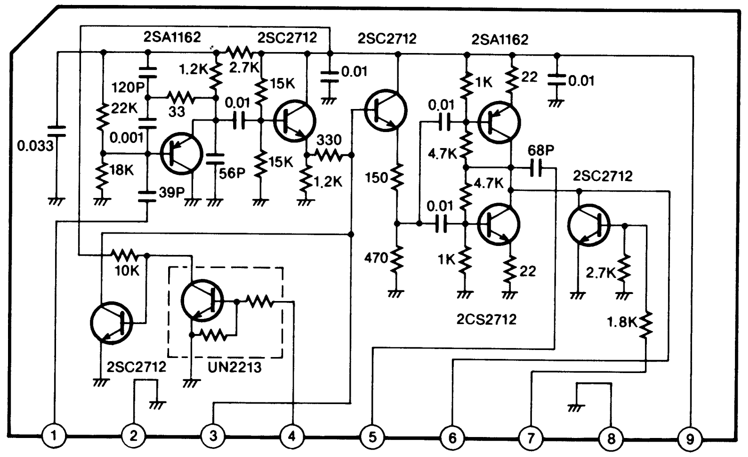
M FOR

IC BLOCK

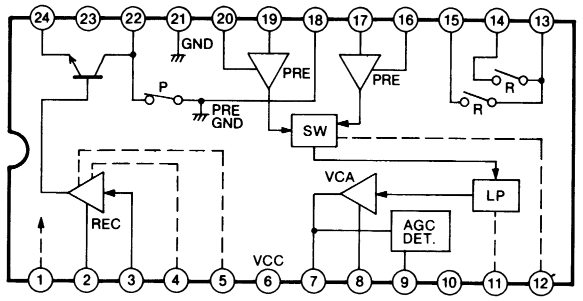
IC501 (AN3334K)


ENV. DET.
ENV. DET.
ENV. COM
AGC DET.
AGC
PEAKING AMP
MIX
C AMP
LOGIC
H. AMP SP
H. AMP SP
H. AMP LP
H. AMP LP
SW CONTROL

IC502 (VCR0271)

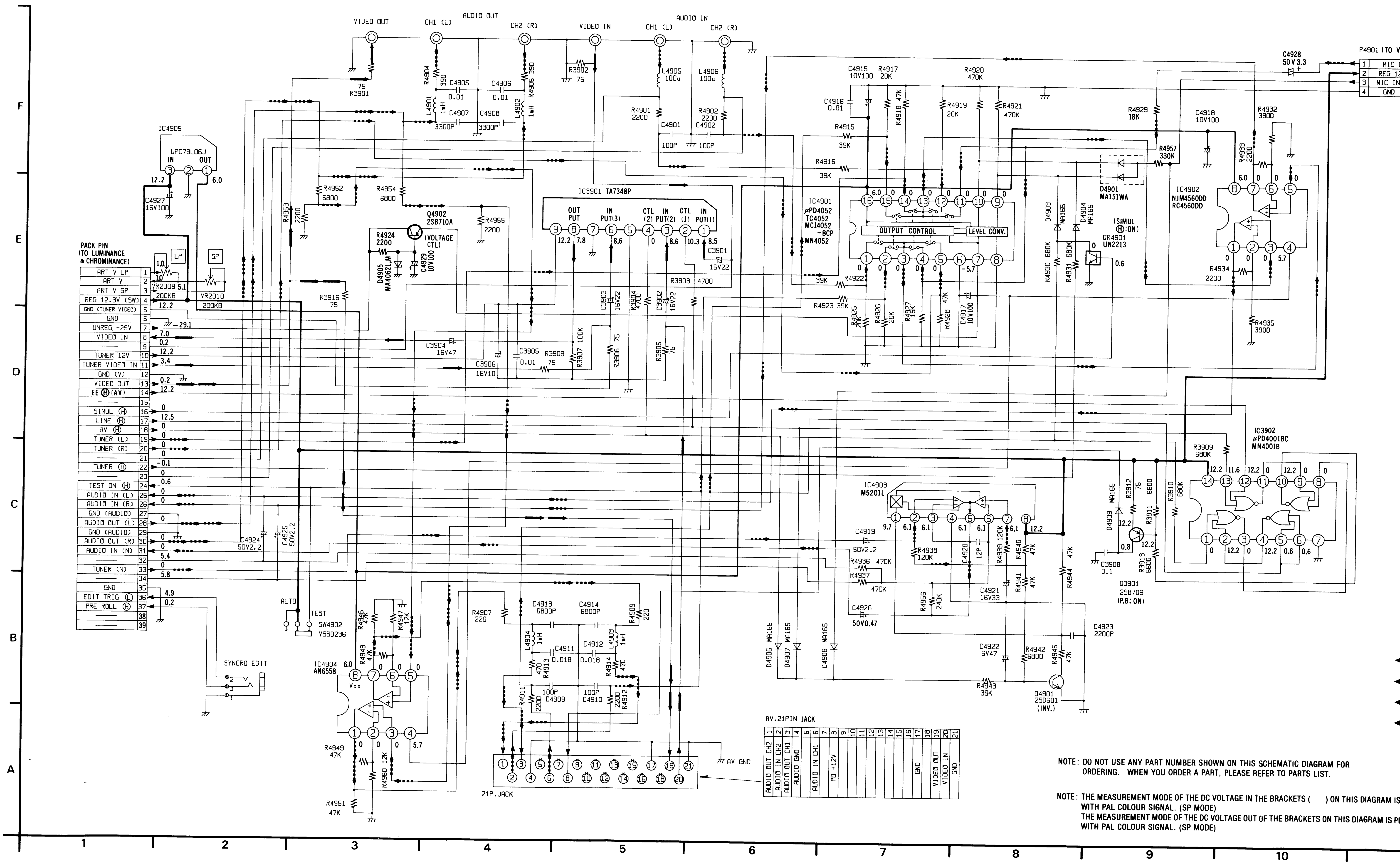

2SA1162
2SC2712
2SC2712
2SA1162
0.033
120P
22K
0.001
18K
1.2K
2.7K
33
0.01
15K
56P
39P
15K
330
1.2K
0.01
150
470
0.01
4.7K
4.7K
0.01
1K
1K
22
0.01
68P
22
2SC2712
2.7K
1.8K
10K
2SC2712
UN2213
2CS2712

IC551 (BA7740FS)


GND
PRE
PRE
P
PRE GND
SW
R
R
VCA
LP
AGC DET.
REC
VCC

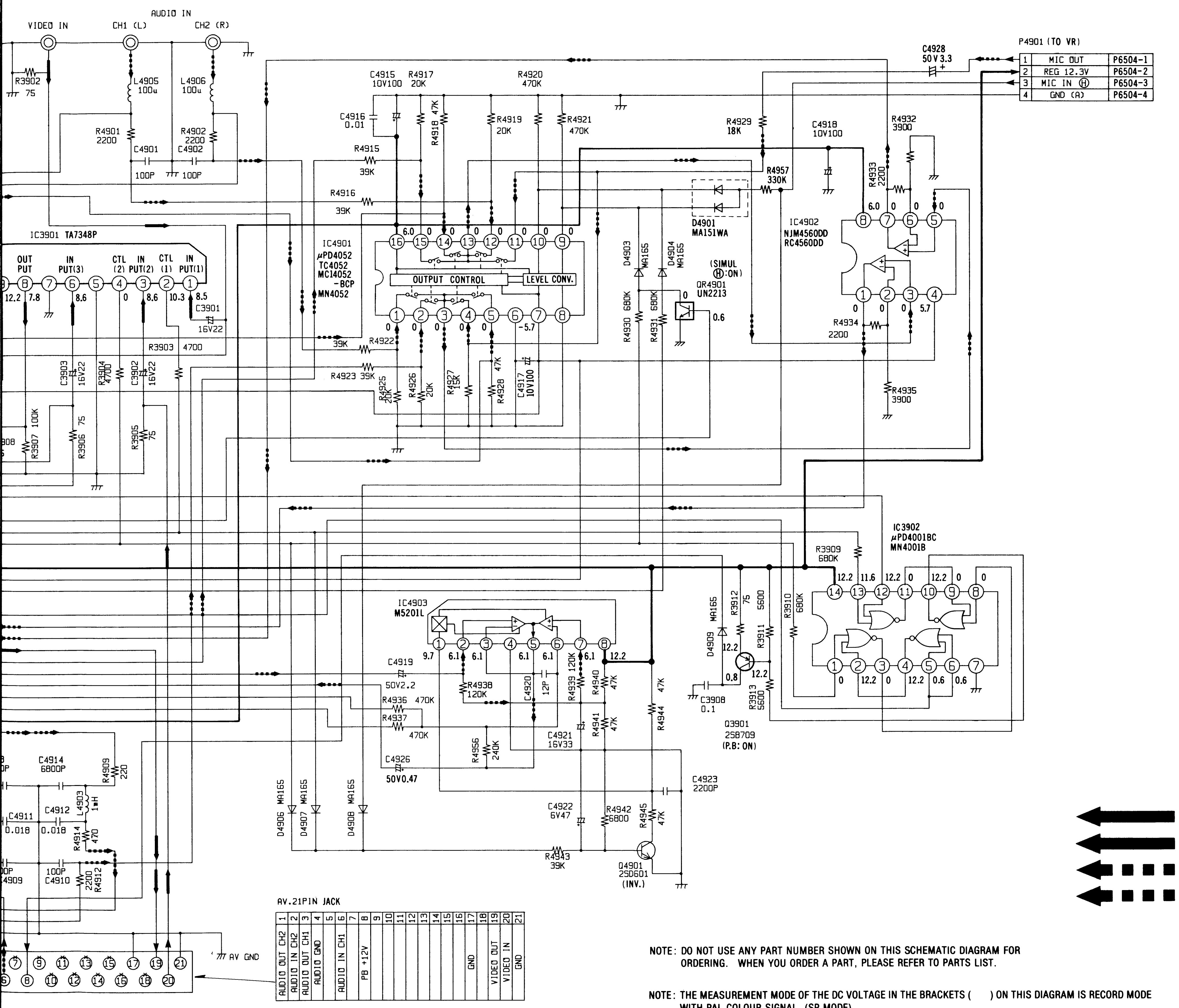
Next Page:
INPUT/OUTPUT PACK Section

3-20. INPUT/OUTPUT PACK SCHEMATIC DIAGRAM


VIDEO OUT
AUDIO OUT
CH1 (L)
CH2 (R)
VIDEO IN
AUDIO IN
CH1 (L)
CH2 (R)
IC4905
UPC78L06J
IN
OUT
12.2
6.0
C4927
16V100
PACK PIN
(TO LUMINANCE
& CHROMINANCE)
ART V LP
ART V
ART V SP
REG 12.3V (SW)
GND (TUNER VIDEO)
GND
UNREG -29V
VIDEO IN
TUNER 12V
TUNER VIDEO IN
GND (V)
VIDEO OUT
EE Ⓗ (AV)
SIMUL Ⓗ
LINE Ⓗ
AV Ⓗ
TUNER (L)
TUNER (R)
TUNER Ⓗ
TEST ON Ⓗ
AUDIO IN (L)
AUDIO IN (R)
GND (AUDIO)
AUDIO OUT (L)
GND (AUDIO)
AUDIO OUT (R)
AUDIO IN (N)
TUNER (N)
GND
EDIT TRIG Ⓛ
PRE ROLL Ⓗ
LP
SP
VR2009
200KB
VR2010
200KB
Q4902
2SB710A
(VOLTAGE CTL)
D4905
MA4062L,M
IC3901 TA7348P
OUT PUT
IN PUT(3)
CTL (2)
IN PUT(2)
CTL (1)
IN PUT(1)
IC4901
µPD4052
TC4052
MC14052-BCP
MN4052
OUTPUT CONTROL
LEVEL CONV.
D4901
MA151WA
(SIMUL Ⓗ:ON)
QR4901
UN2213
IC4902
NJM4560DD
RC4560DD
C4928
50V3.3
P4901 (TO V
MIC
REG 12
MIC IN
GND
IC3902
µPD4001BC
MN4001B
IC4903
M5201L
Q3901
2SB709
(P.B: ON)
Q4901
2SD601
(INV.)
AUTO
TEST
SW4902
VSS0236
SYNCRO EDIT
IC4904
AN6558
Vcc
AV.21PIN JACK
AUDIO OUT CH2
AUDIO IN CH2
AUDIO OUT CH1
AUDIO GND
AUDIO IN CH1
PB +12V
GND
VIDEO OUT
VIDEO IN
GND
21P.JACK
AV GND
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10

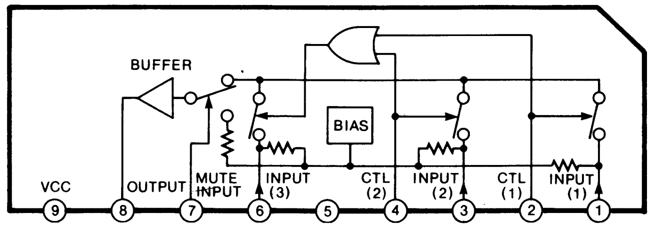
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS
WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS
WITH PAL COLOUR SIGNAL. (SP MODE)

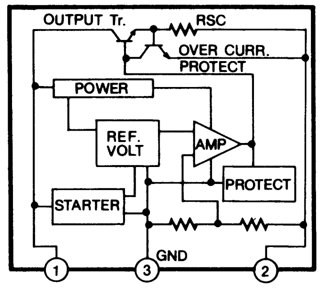

AUDIO IN
VIDEO IN
CH1 (L)
CH2 (R)
R3902 75
L4905 100u
L4906 100u
R4901 2200
R4902 2200
C4901 100P
C4902 100P
IC3901 TA7348P
OUT PUT
IN PUT(3)
CTL (2)
IN PUT(2)
CTL (1)
IN PUT(1)
C3901 16V22
R3903 4700
C3903 16V22
R3904 4700
C3902 16V22
R3907 100K
R3906 75
R3905 75
C4915 10V100
R4917 20K
R4920 470K
C4916 0.01
R4918 47K
R4919 20K
R4921 470K
R4915 39K
R4916 39K
IC4901
µPD4052
TC4052
MC14052 -BCP
MN4052
OUTPUT CONTROL
LEVEL CONV.
R4922 39K
R4923 39K
R4925 20K
R4926 20K
R4927 15K
R4928 47K
C4917 10V100
D4903 MA165
D4904 MA165
R4930 680K
R4931 680K
(SIMUL Ⓗ:ON)
QR4901 UN2213
D4901 MA151WA
R4929 18K
R4957 330K
C4918 10V100
R4933 2200
R4932 3900
IC4902
NJM4560DD
RC4560DD
R4934 2200
R4935 3900
C4928 50V3.3
P4901 (TO VR)
MIC OUT P6504-1
REG 12.3V P6504-2
MIC IN Ⓗ P6504-3
GND (A) P6504-4
IC3902
µPD4001BC
MN4001B
R3909 680K
R3910 680K
R3912 75
R3911 5600
R3913 5600
D4909 MA165
C3908 0.1
Q3901 2SB709 (P.B: ON)
IC4903 M5201L
C4919 50V2.2
R4936 470K
R4937 470K
R4938 120K
C4920 12P
R4939 120K
R4940 47K
R4941 47K
R4944 47K
C4921 16V33
R4956 240K
C4926 50V0.47
C4923 2200P
C4922 6V47
R4942 6800
R4945 47K
R4943 39K
Q4901 2SD601 (INV.)
C4914 6800P
R4909 220
C4911 0.018
C4912 0.018
L4903 1mH
R4914 470
C4910 100P
R4912 2200
C4909
D4906 MA165
D4907 MA165
D4908 MA165
AV GND
AV.21PIN JACK
1 AUDIO OUT CH2
2 AUDIO IN CH2
3 AUDIO OUT CH1
4 AUDIO GND
6 AUDIO IN CH1
8 PB +12V
18 GND
19 VIDEO OUT
20 VIDEO IN
21 GND

IC BLOCK

IC3901 (TA7348P)


BUFFER
BIAS
VCC
OUTPUT
MUTE INPUT
INPUT (3)
CTL (2)
INPUT (2)
CTL (1)
INPUT (1)
9
8
7
6
5
4
3
2
1

IC4905 (µPC78L06J)


OUTPUT Tr.
RSC
OVER CURR. PROTECT
POWER
REF. VOLT
AMP
PROTECT
STARTER
GND
1
3
2

◀▬▬ VIDEO MAIN SIGNAL PATH IN REC MODE

◀▬▬ VIDEO MAIN SIGNAL PATH IN PLAYBACK MODE

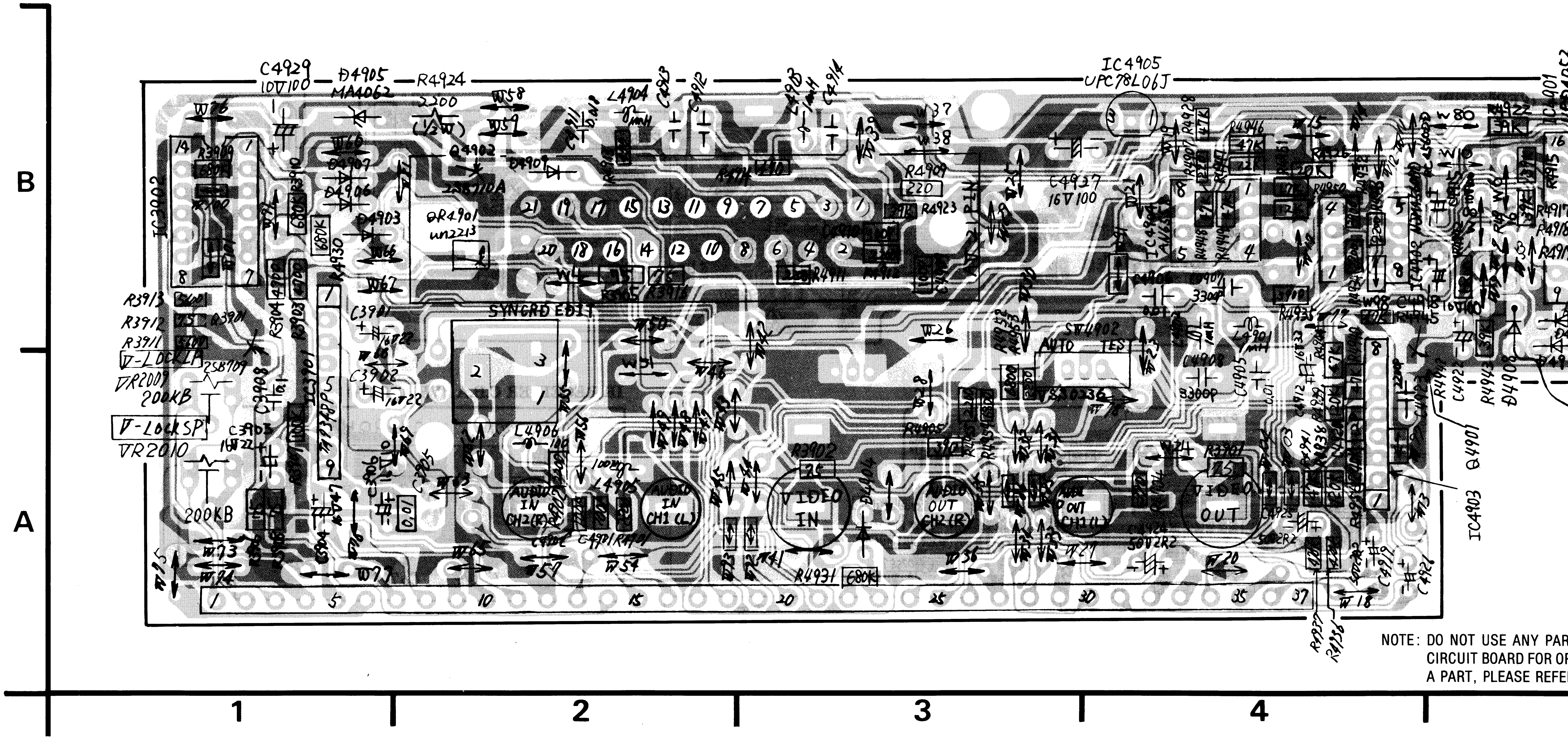
◀■ ■ ■ AUDIO MAIN SIGNAL PATH IN REC MODE

◀■ ■ ■ AUDIO MAIN SIGNAL PATH IN PLAYBACK MODE

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

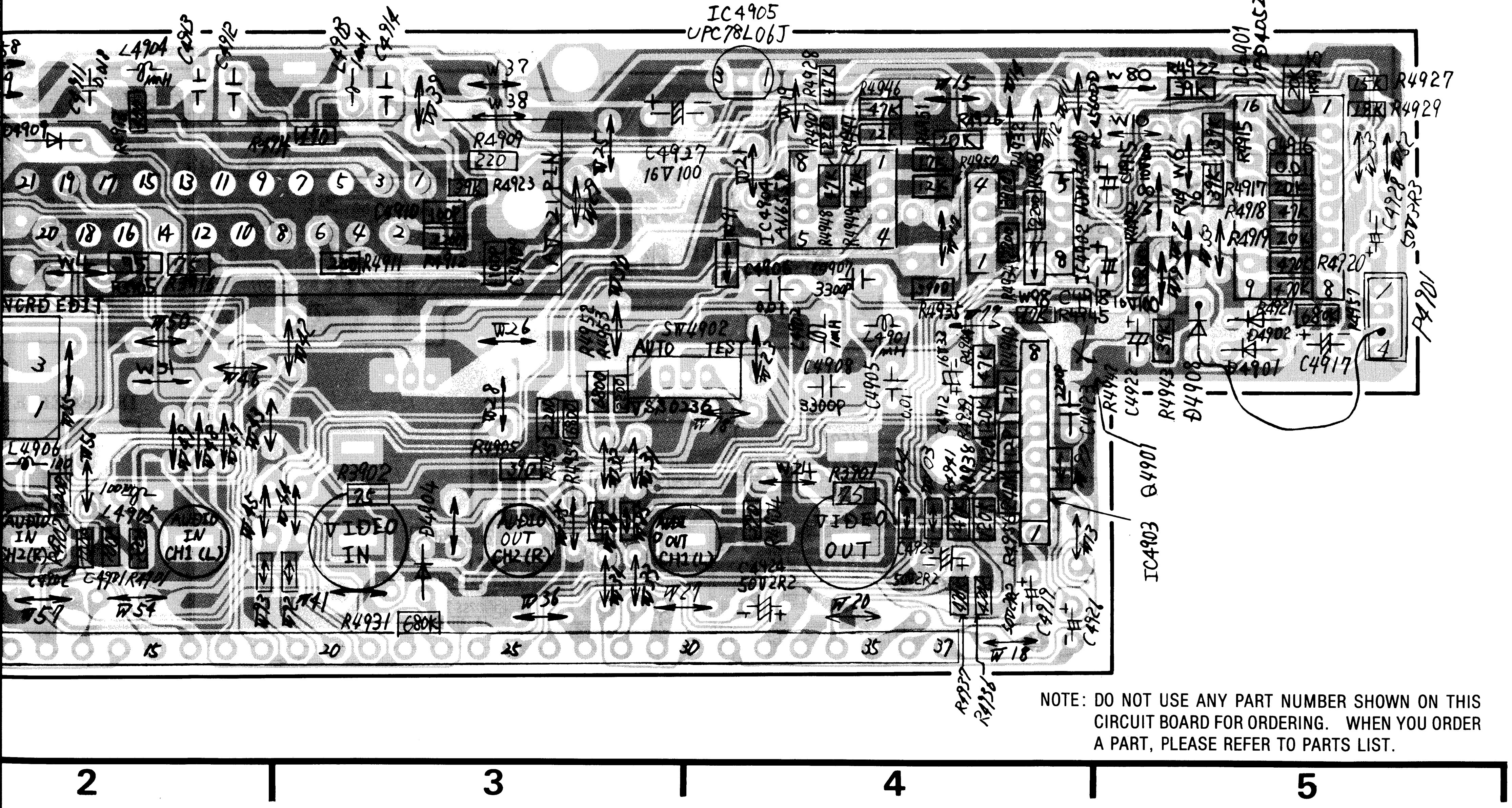
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE IN THE BRACKETS ( ) ON THIS DIAGRAM IS RECORD MODE WITH PAL COLOUR SIGNAL. (SP MODE)
THE MEASUREMENT MODE OF THE DC VOLTAGE OUT OF THE BRACKETS ON THIS DIAGRAM IS PLAYBACK MODE WITH PAL COLOUR SIGNAL. (SP MODE)

3-21. INPUT/OUTPUT PACK C.B.A. (VEP04253A)


B
A
1
2
3
4
C4929
10V100
D4905
MA4062
R4924
2200 (1/2W)
IC4905
UPC78L06J
IC3902
Q4902
2SB710A
QR4901
un2213
R4909
220
R4923
C4927
16V100
R3913
R3912
R3911
V-LOCK IP
VR2009
200KB
2SB709
V-LOCK SP
VR2010
200KB
C3903
IC3901
C3908
C3901
C3902
SYNCRO EDIT
L4906
L4905
AUDIO IN CH2(R)
AUDIO IN CH1(L)
VIDEO IN
R3902
D4904
R4931
680K
AUDIO OUT CH2(R)
AUDIO OUT CH1(L)
VIDEO OUT
R3901
SW4902
AUTO TEST
MA30336
C4908
3300P
C4905
0.01
C4922
50V2R2
IC4903
Q4901
D4908
R4922
3.3K
R4946
47K
R4937
R4936
C4919
C4921
W18
W20
W27
W36
W41
W54
W57
W73
W74
W77
W15
W26
W38
W58
W59
W80
W10

NOTE: DO NOT USE ANY PAR
CIRCUIT BOARD FOR OF
A PART, PLEASE REFE

A)


IC4905
UPC78L06J
IC4901
UPD4052
IC4903
Q4901
R4927
R4929
P4901
L4904
C4912
C4913
C4914
W37
W38
R4909
R4923
C4927
16V100
R4928
R4946
R4922
R4917
R4918
R4919
R4920
C4917
D4901
D4902
D4908
R4944
SW4902
AUTO
TEST
C4908
3300P
C4907
C4905
C4909
R4911
R4912
R4905
R3902
R3901
VIDEO IN
VIDEO OUT
AUDIO IN CH2(R)
AUDIO IN CH1 (L)
AUDIO OUT CH2 (R)
AUDIO OUT CH1 (L)
L4906
L4905
D4404
R4931
680K
C4924
50V2R2
C4925
C4919
C4921
W57
W54
W36
W27
W20
W18
W26
W51
W50
R4937
R4936
2
3
4
5

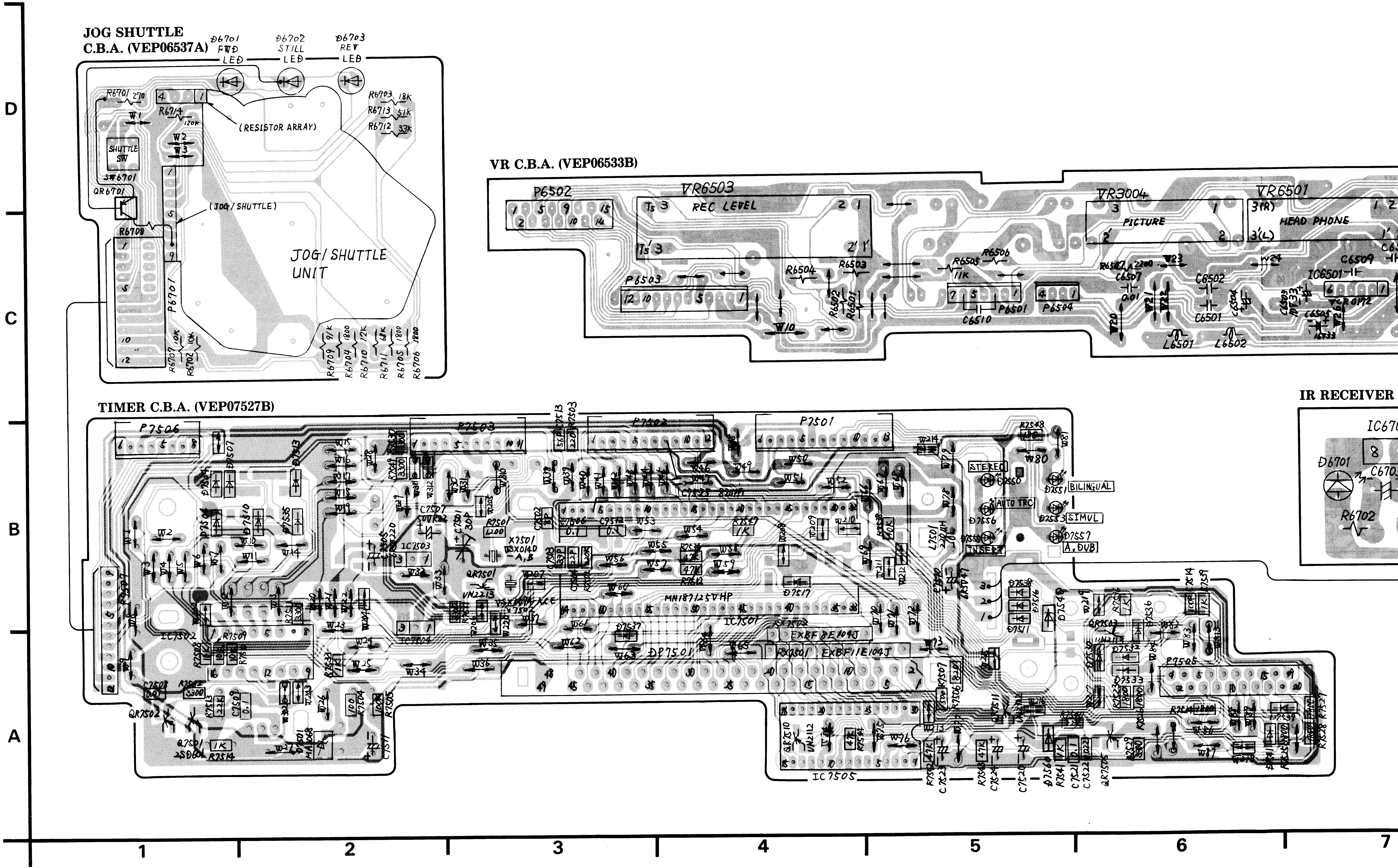
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

INPUT/OUTPUT PACK C.B.A.	
Transistor	
Q3901 Q4901 Q4902	B-1 A-5 B-2
Transistor & Resistor	
QR4901	B-2
Integrated Circuit	
IC3901 IC3902 IC4901 IC4902 IC4903 IC4904 IC4905	A-1 B-1 B-5 B-4 A-5 B-4 B-4
Adjustment	
VR2009 VR2010	A-1 A-1
Connector	
P4901	B-5

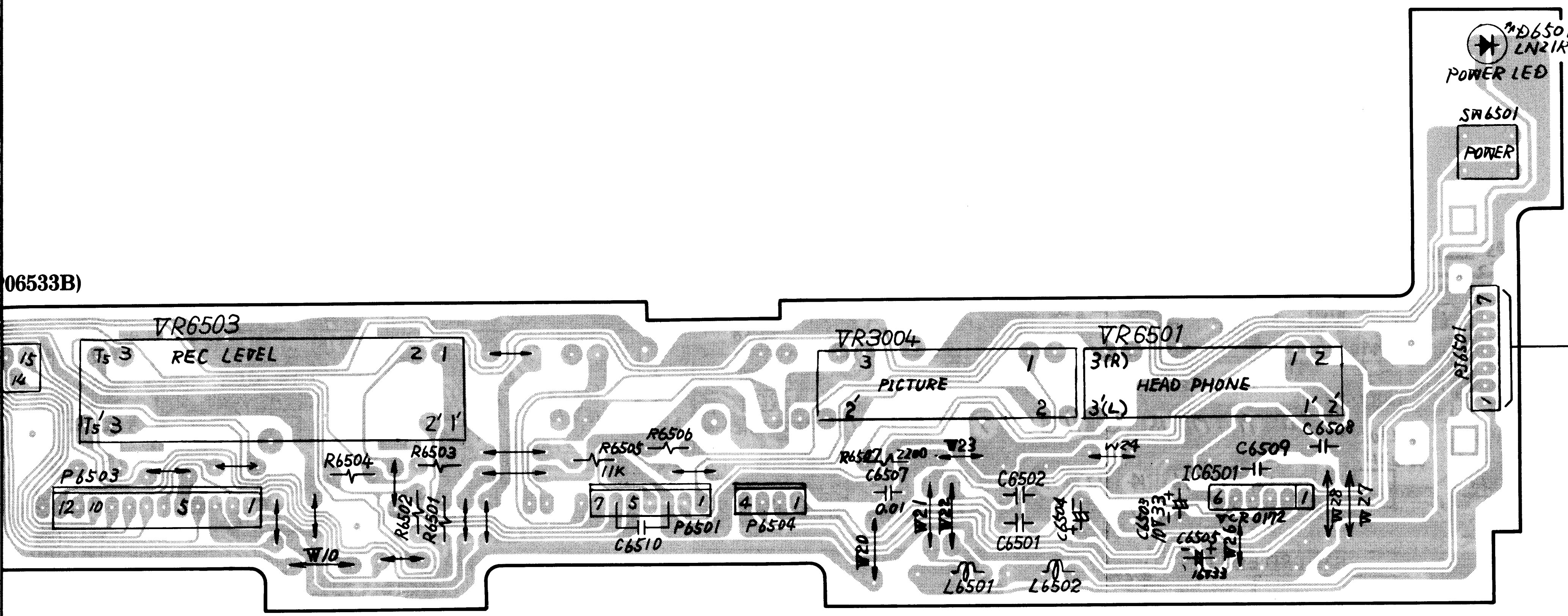
ADDRESS INFORMATION

Next Page:
TIMER & VR Section

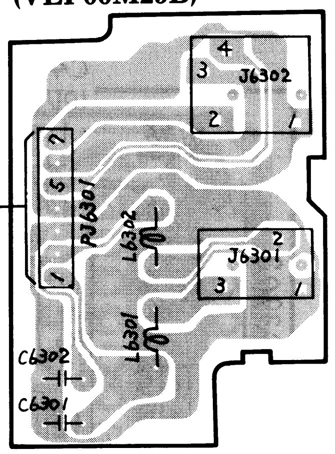
3-22. TIMER C.B.A. (VEP07527B) & VR C.B.A. (VEP06533B)


JOG SHUTTLE C.B.A. (VEP06537A)
D6701 FWD LED
D6702 STILL LED
D6703 REV LED
(RESISTOR ARRAY)
SHUTTLE SW
SW6701
QR6701
(JOG/SHUTTLE)
JOG/SHUTTLE UNIT
P6701
VR C.B.A. (VEP06533B)
P6502
VR6503
REC LEVEL
VR3004
PICTURE
VR6501
HEAD PHONE
IC6501
P6503
P6501
P6504
TIMER C.B.A. (VEP07527B)
P7506
P7503
P7502
P7501
STEREO
BILINGUAL
AUTO TRC
SIMUL
INSERT
A.DUB
IC7503
IC7502
IC7504
X7501 TSX0140-A,B
QR7501 UN2213
MN187125VHP
IC7501
DP7501
RX7501 EXBF11E104J
EXBF8E104J
IC7505
P7505
QR7502
Q7501 2SD601
IR RECEIVER
IC670
D6701
C670
R6702
D
C
B
A
1
2
3
4
5
6
7

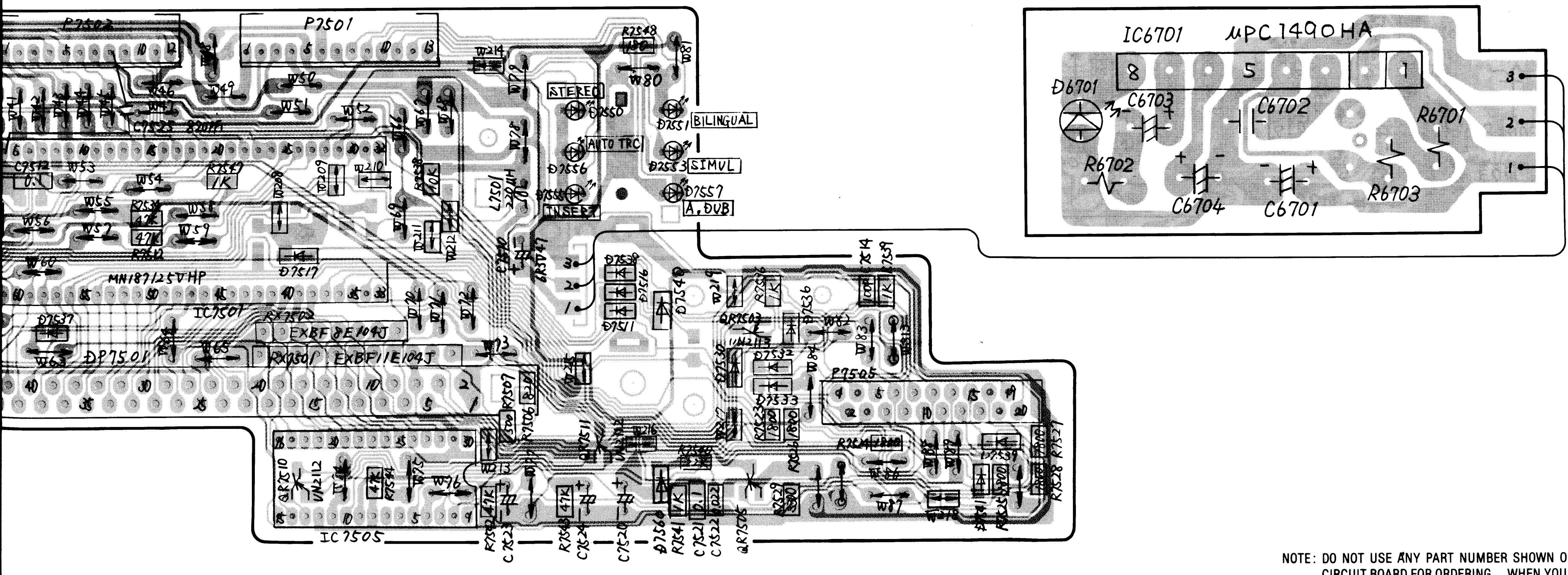
06533B)


D6501 LN21RCPHL
POWER LED
SW6501
POWER
VR6503
REC LEVEL
VR3004
PICTURE
VR6501
HEAD PHONE
P6503
R6504
R6503
R6505
R6506
11K
P6501
P6504
C6510
C6507
C6502
C6501
C6509
C6508
IC6501
L6501
L6502
W10
W23
W24
PJ6501

HEADPHONE & MIC JACK C.B.A. (VEP00M29B)


J6302
J6301
PJ6301
L6302
L6301
C6302
C6301

IR RECEIVER C.B.A. (VEP06552A)


P7502
P7501
STEREO
BILINGUAL
AUTO TRC
SIMUL
INSERT
A.DUB
MN187125VHP
IC7501
EXBF8E104J
EXBF11E104J
DP7501
P7505
IC7505
IC6701
µPC1490HA
D6701
C6703
C6702
R6701
R6702
R6703
C6704
C6701

TIMER C.B.A. & VR C.B.A.	
Transistor	
Q7501	A-1
Transistor & Resistor	
QR6701	D-1
QR7501	B-3
QR7502	A-1
QR7503	A-6
QR7505	A-6
QR7510	A-4
QR7511	A-5
Integrated Circuit	
IC6501	C-7
IC6701	B-7
IC7501	B-4
IC7502	A-1
IC7503	B-2
IC7504	A-2
IC7505	A-4
Adjustment	
C7501	B-3
VR3004	D-6
VR6501	D-7
VR6503	D-4
Connector	
P6501	C-5
P6502	D-3
P6503	C-3
P6504	C-5
P6701	C-1
P7501	B-4
P7502	B-3
P7503	B-3
P7505	A-6
P7506	B-1
P7507	B-1
PJ6501	C-7
PJ6301	C-8

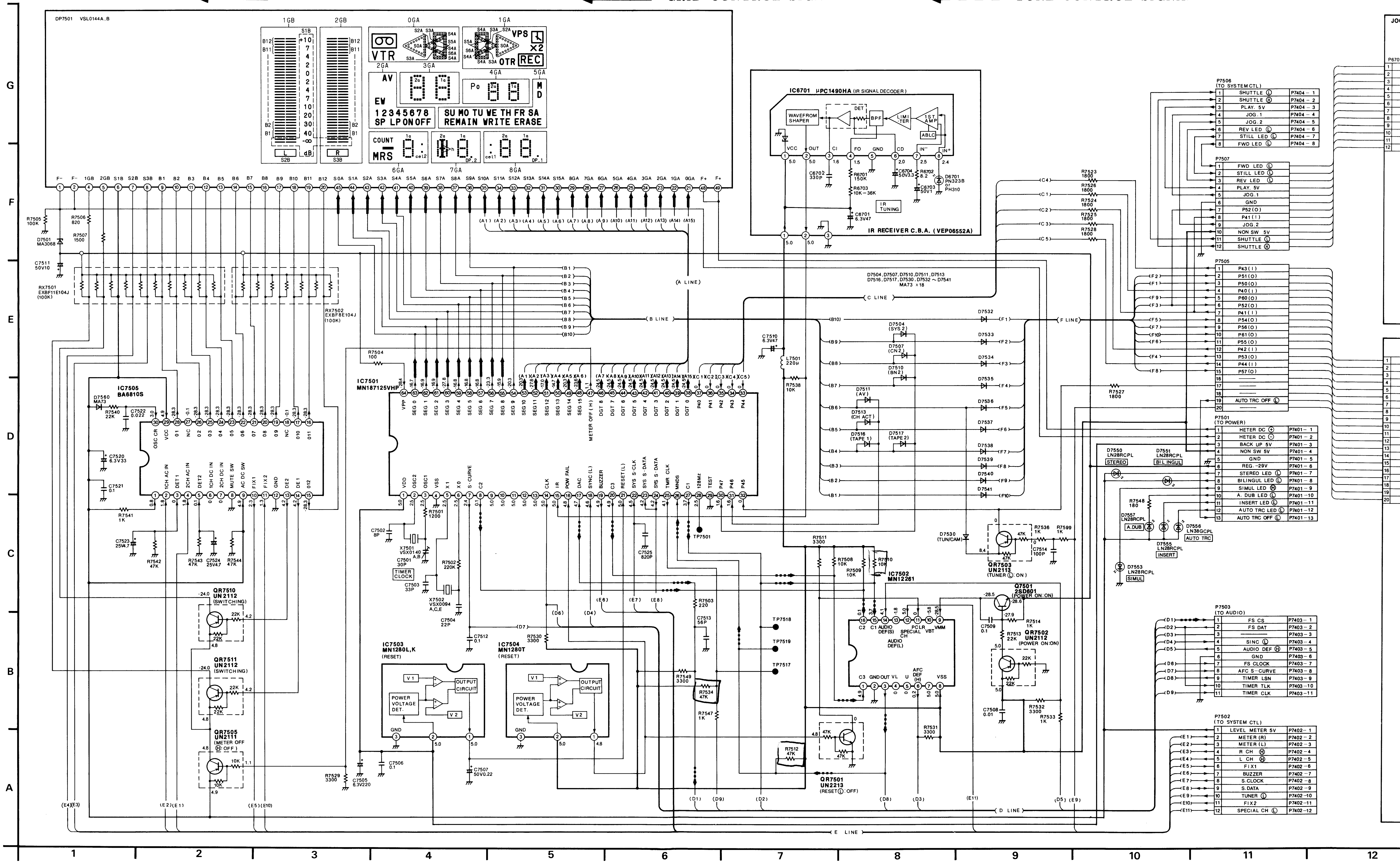
ADDRESS INFORMATION

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

4 5 6 7 8

3-23. TIMER & VR SCHEMATIC DIAGRAM

SEGMENT CONTROL SIGNAL GRID CONTROL SIGNAL TUNE CONTROL SIGNAL


DP7501 VSL0144A.B
IC6701 μPC1490HA (IR SIGNAL DECODER)
IR RECEIVER C.B.A. (VEP06552A)
IC7501 MN187125VHP
IC7505 BA6810S
IC7502 MN12261
IC7503 MN1280L,K (RESET)
IC7504 MN1280T (RESET)
QR7510 UN2112 (SWITCHING)
QR7511 UN2112 (SWITCHING)
QR7505 UN2111 (METER OFF Ⓗ: OFF)
QR7501 UN2213 (RESET Ⓛ: OFF)
QR7503 UN2113 (TUNER Ⓛ: ON)
Q7501 2SD601 (POWER ON: ON)
QR7502 UN2112 (POWER ON: ON)
X7501 VSX0140 A,B
X7502 VSX0094 A,C,E
TIMER CLOCK
RX7501 EXBF11E104J (100K)
RX7502 EXBF8E104J (100K)
D7504, D7507, D7510, D7511, D7513, D7516, D7517, D7530, D7532 ~ D7541 MA73 ×18
D7550 LN28RCPL STEREO
D7551 LN28RCPL BILINGUL
D7557 LN28RCPL A.DUB
D7556 LN38GCPL AUTO TRC
D7555 LN28RCPL INSERT
D7553 LN28RCPL SIMUL
A LINE
B LINE
C LINE
D LINE
E LINE
F LINE
P7506 (TO SYSTEM CTL)
1 SHUTTLE Ⓛ P7404 – 1
2 SHUTTLE Ⓗ P7404 – 2
3 PLAY. 5V P7404 – 3
4 JOG.1 P7404 – 4
5 JOG.2 P7404 – 5
6 REV LED Ⓛ P7404 – 6
7 STILL LED Ⓛ P7404 – 7
8 FWD LED Ⓛ P7404 – 8
P7507
1 FWD LED Ⓛ
2 STILL LED Ⓛ
3 REV LED Ⓛ
4 PLAY. 5V
5 JOG.1
6 GND
7 P52(O)
8 P41(I)
9 JOG.2
10 NON SW 5V
11 SHUTTLE Ⓛ
12 SHUTTLE Ⓗ
P7505
1 P43(I)
2 P51(O)
3 P50(O)
4 P40(I)
5 P60(O)
6 P52(O)
7 P41(I)
8 P54(O)
9 P56(O)
10 P61(O)
11 P55(O)
12 P42(I)
13 P53(O)
14 P44(I)
15 P57(O)
16 ———
17 ———
18 ———
19 AUTO TRC OFF Ⓛ
20 ———
P7501 (TO POWER)
1 HETER DC ⊕ P7401 – 1
2 HETER DC ⊖ P7401 – 2
3 BACK UP 5V P7401 – 3
4 NON SW 5V P7401 – 4
5 GND P7401 – 5
6 REG. –29V P7401 – 6
7 STEREO LED Ⓛ P7401 – 7
8 BILINGUL LED Ⓛ P7401 – 8
9 SIMUL LED Ⓗ P7401 – 9
10 A. DUB LED Ⓛ P7401 – 10
11 INSERT LED Ⓛ P7401 – 11
12 AUTO TRC LED Ⓛ P7401 – 12
13 AUTO TRC OFF Ⓛ P7401 – 13
P7503 (TO AUDIO)
1 FS CS P7403 – 1
2 FS DAT P7403 – 2
3 ——— P7403 – 3
4 SINC Ⓛ P7403 – 4
5 AUDIO DEF Ⓗ P7403 – 5
6 GND P7403 – 6
7 FS CLOCK P7403 – 7
8 AFC S–CURVE P7403 – 8
9 TIMER LSN P7403 – 9
10 TIMER TLK P7403 – 10
11 TIMER CLK P7403 – 11
P7502 (TO SYSTEM CTL)
1 LEVEL METER 5V P7402 – 1
2 METER (R) P7402 – 2
3 METER (L) P7402 – 3
4 R CH Ⓗ P7402 – 4
5 L CH Ⓗ P7402 – 5
6 FIX1 P7402 – 6
7 BUZZER P7402 – 7
8 S.CLOCK P7402 – 8
9 S.DATA P7402 – 9
10 TUNER Ⓛ P7402 – 10
11 FIX2 P7402 – 11
12 SPECIAL CH Ⓛ P7402 – 12
G
F
E
D
C
B
A
1
2
3
4
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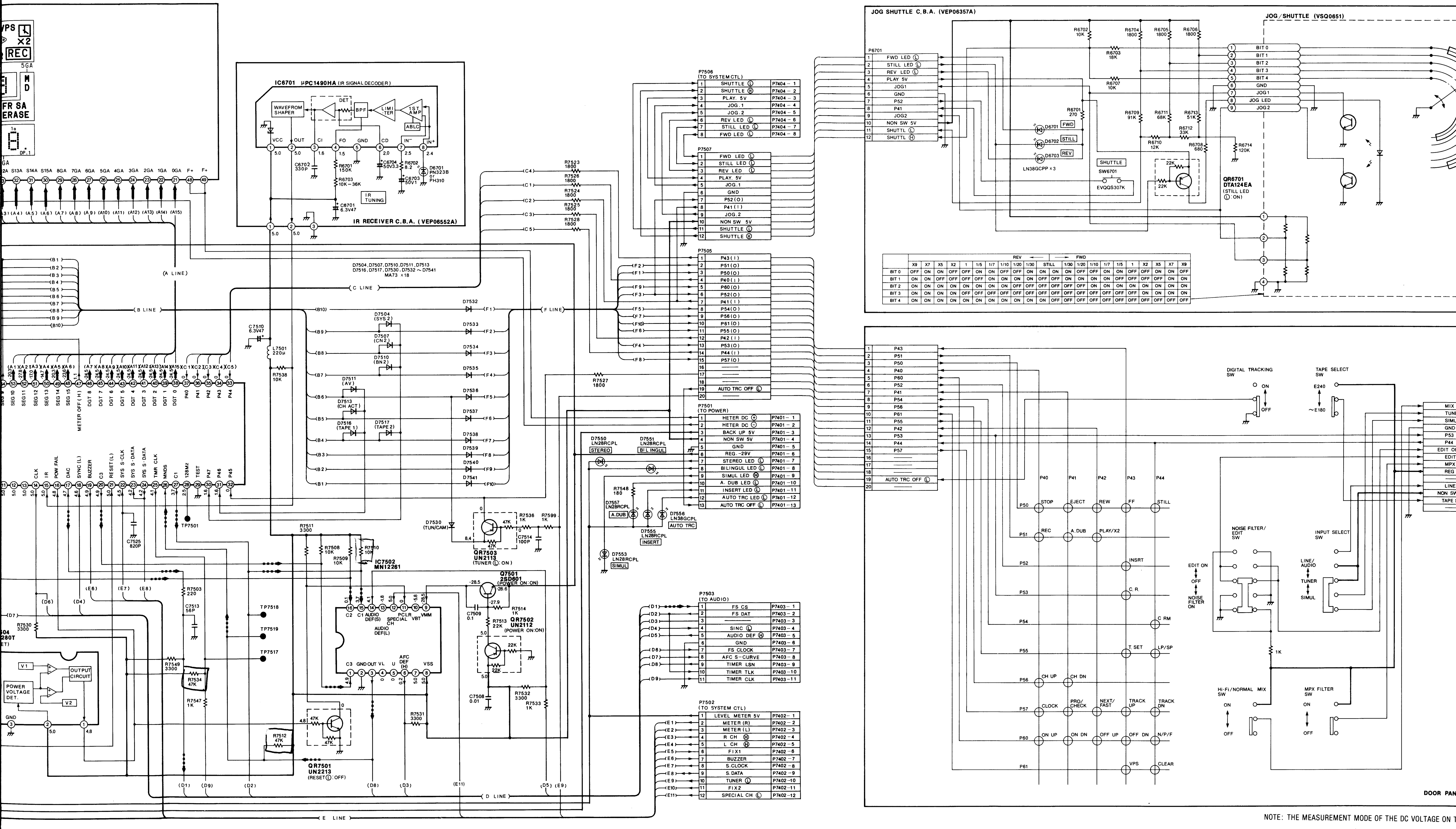
10
11
12

~~☐ Die Widerstände ändern in 2,2K S.4~~. 10

GRID CONTROL SIGNAL

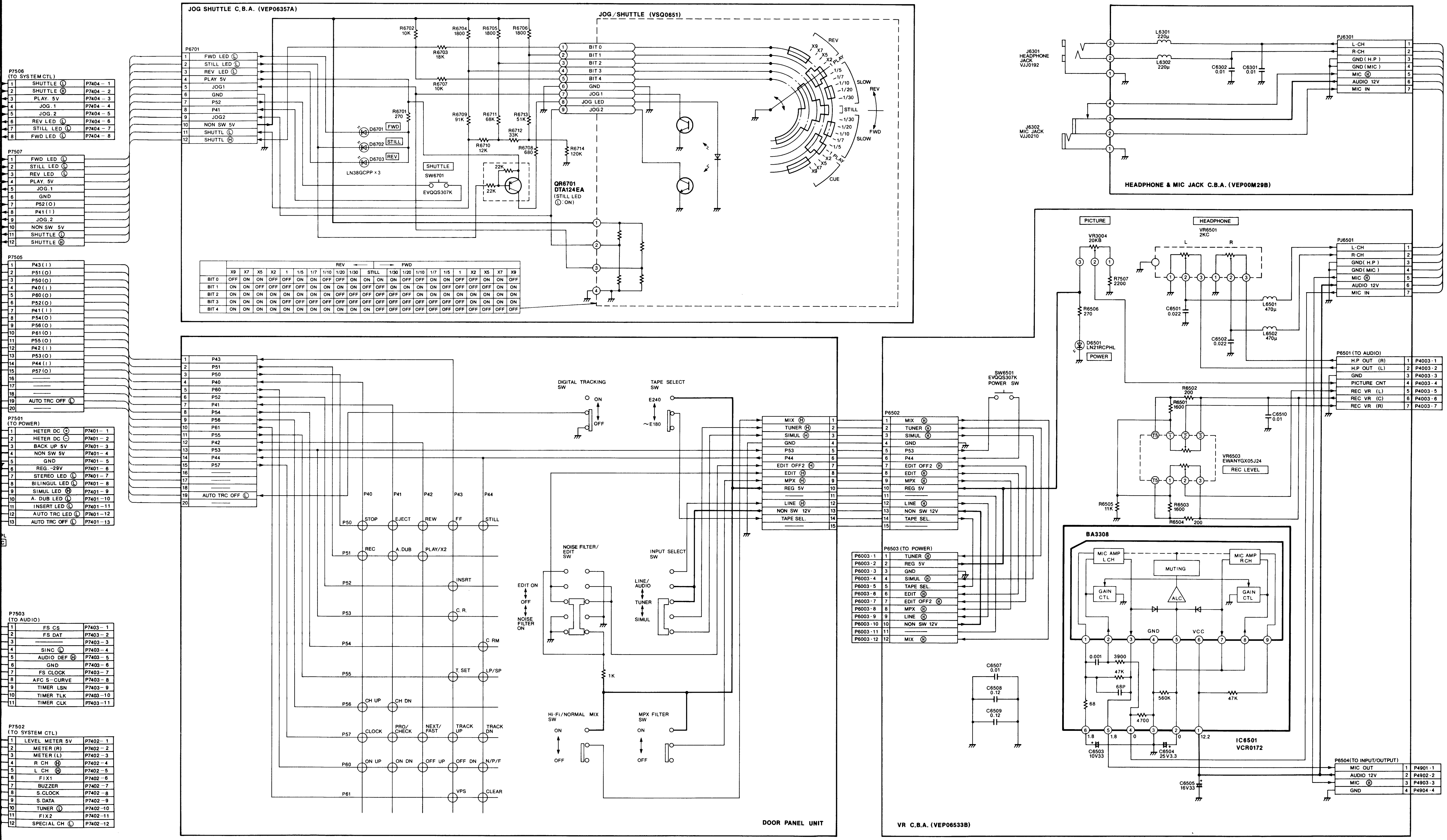
TUNE CONTROL SIGNAL


IC6701 µPC1490HA (IR SIGNAL DECODER)
WAVEFROM SHAPER
DET
BPF
LIMITER
1ST AMP
ABLC
IR TUNING
IR RECEIVER C.B.A. (VEP06552A)
P7506 (TO SYSTEM CTL)
P7507
P7505
P7501 (TO POWER)
P7503 (TO AUDIO)
P7502 (TO SYSTEM CTL)
IC7502 MN12261
Q7501 2SD601 (POWER ON:ON)
QR7502 UN2112 (POWER ON:ON)
QR7503 UN2113 (TUNER Ⓛ: ON)
QR7501 UN2213 (RESET Ⓛ: OFF)
A LINE
B LINE
C LINE
D LINE
E LINE
F LINE
JOG SHUTTLE C.B.A. (VEP06357A)
JOG/SHUTTLE (VSQ0651)
QR6701 DTA124EA (STILL LED Ⓛ: ON)
SHUTTLE SW6701 EVQQS307K
LN38GCPP ×3
DIGITAL TRACKING SW
TAPE SELECT SW
NOISE FILTER/EDIT SW
INPUT SELECT SW
Hi-Fi/NORMAL MIX SW
MPX FILTER SW
STOP
EJECT
REW
FF
STILL
REC
A.DUB
PLAY/X2
INSRT
C.R.
C RM
T. SET
LP/SP
CH UP
CH DN
CLOCK
PRO/CHECK
NEXT/FAST
TRACK UP
TRACK DN
ON UP
ON DN
OFF UP
OFF DN
N/P/F
VPS
CLEAR
DOOR PAN

	REV ←										→ FWD											
	X9	X7	X5	X2	1	1/5	1/7	1/10	1/20	1/30	STILL		1/30	1/20	1/10	1/7	1/5	1	X2	X5	X7	X9
BIT 0	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF
BIT 1	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON
BIT 2	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
BIT 3	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON
BIT 4	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON T

e ändern in 2,2K ~~5.4.~~ 90


JOG SHUTTLE C.B.A. (VEP06357A)
JOG/SHUTTLE (VSQ0651)
P7506 (TO SYSTEM CTL)
P7507
P7505
P7501 (TO POWER)
P7503 (TO AUDIO)
P7502 (TO SYSTEM CTL)
P6701
QR6701 DTA124EA (STILL LED Ⓛ: ON)
LN38GCPP × 3
SHUTTLE
SW6701 EVQQS307K
DOOR PANEL UNIT
DIGITAL TRACKING SW
TAPE SELECT SW
NOISE FILTER/EDIT SW
INPUT SELECT SW
Hi-Fi/NORMAL MIX SW
MPX FILTER SW
HEADPHONE & MIC JACK C.B.A. (VEP00M29B)
J6301 HEADPHONE JACK VJJ0192
J6302 MIC JACK VJJ0210
PJ6301
PJ6501
P6501 (TO AUDIO)
P6502
P6503 (TO POWER)
P6504 (TO INPUT/OUTPUT)
SW6501 EVQQS307K POWER SW
VR3004 20KB
VR6501 2KC
VR6503 EWANYGX05J24
REC LEVEL
PICTURE
HEADPHONE
POWER
D6501 LN21RCPHL
BA3308
MIC AMP L CH
MIC AMP R CH
MUTING
GAIN CTL
ALC
IC6501 VCR0172
VR C.B.A. (VEP06533B)

	REV ←											→ FWD									
	X9	X7	X5	X2	1	1/5	1/7	1/10	1/20	1/30	STILL		1/30	1/20	1/10	1/7	1/5	1	X2	X5	X7	X9
BIT 0	OFF	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	OFF	OFF	ON	ON	OFF
BIT 1	ON	ON	OFF	OFF	OFF	OFF	ON	ON	ON	ON	OFF	OFF	ON	ON	ON	ON	OFF	OFF	OFF	OFF	ON	ON
BIT 2	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON	ON	ON	ON	ON
BIT 3	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	ON	ON	ON	ON
BIT 4	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

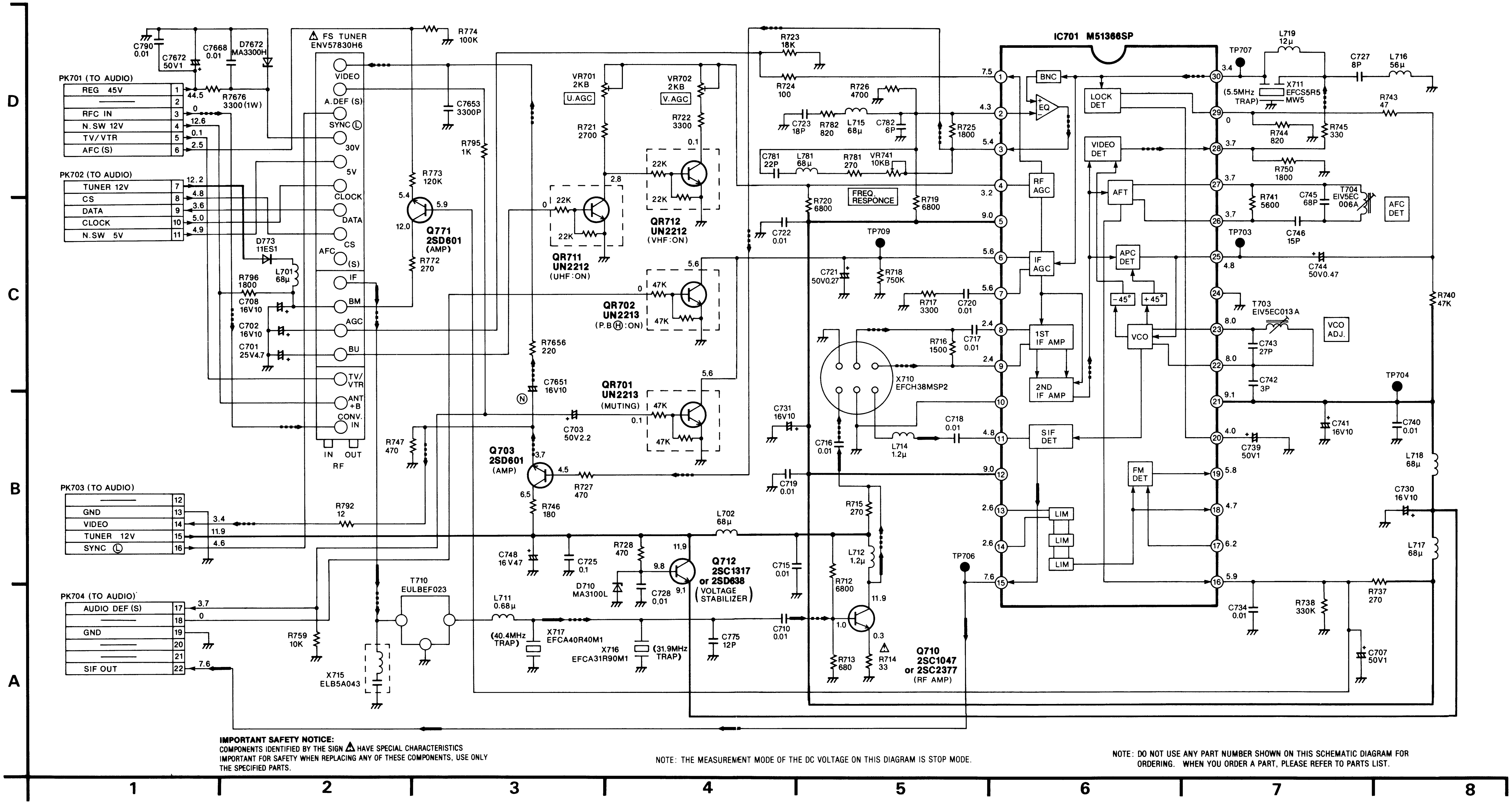
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-24. TV DEMODULATOR PACK SCHEMATIC DIAGRAM

3-25. TV DE

◀■ ■ ■ ■ VIDEO SIGNAL PATH

◀━━━ AUDIO SIGNAL PATH


D
C
B
A
1
2
3
4
5
6
7
8
PK701 (TO AUDIO)
REG 45V
RFC IN
N.SW 12V
TV/VTR
AFC (S)
PK702 (TO AUDIO)
TUNER 12V
CS
DATA
CLOCK
N.SW 5V
PK703 (TO AUDIO)
GND
VIDEO
TUNER 12V
SYNC Ⓛ
PK704 (TO AUDIO)
AUDIO DEF (S)
GND
SIF OUT
C790 0.01
C7672 50V1
C7668 0.01
D7672 MA3300H
R7676 3300 (1W)
⚠ FS TUNER ENV57830H6
VIDEO
A.DEF (S)
SYNC Ⓛ
30V
5V
CLOCK
DATA
CS
AFC (S)
IF
BM
AGC
BU
TV/VTR
ANT +B
CONV. IN
IN OUT RF
R774 100K
C7653 3300P
R795 1K
R773 120K
Q771 2SD601 (AMP)
R772 270
D773 11ES1
L701 68μ
R796 1800
C708 16V10
C702 16V10
C701 25V4.7
VR701 2KB
U.AGC
VR702 2KB
V.AGC
R721 2700
R722 3300
QR711 UN2212 (UHF:ON)
QR712 UN2212 (VHF:ON)
QR702 UN2213 (P.BⒽ:ON)
QR701 UN2213 (MUTING)
22K
47K
R7656 220
C7651 16V10
Ⓝ
C703 50V2.2
Q703 2SD601 (AMP)
R727 470
R746 180
R747 470
R792 12
C748 16V47
C725 0.1
R728 470
D710 MA3100L
C728 0.01
Q712 2SC1317 or 2SD638 (VOLTAGE STABILIZER)
L702 68μ
T710 EULBEF023
L711 0.68μ
(40.4MHz TRAP)
X717 EFCA40R40M1
X716 EFCA31R90M1
(31.9MHz TRAP)
C775 12P
X715 ELB5A043
R759 10K
R723 18K
R724 100
R726 4700
C723 18P
R782 820
L715 68μ
C782 6P
R725 1800
C781 22P
L781 68μ
R781 270
VR741 10KB
FREQ. RESPONCE
R720 6800
R719 6800
C722 0.01
TP709
C721 50V0.27
R718 750K
R717 3300
C720 0.01
R716 1500
C717 0.01
X710 EFCH38MSP2
C731 16V10
C716 0.01
C718 0.01
L714 1.2μ
C719 0.01
R715 270
L712 1.2μ
R712 6800
C715 0.01
C710 0.01
R713 680
⚠ R714 33
Q710 2SC1047 or 2SC2377 (RF AMP)
TP706
IC701 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
AFT
IF AGC
APC DET
-45°
+45°
VCO
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
TP707
L719 12μ
C727 8P
L716 56μ
X711 EFCS5R5 MW5
(5.5MHz TRAP)
R743 47
R744 820
R745 330
R750 1800
R741 5600
C745 68P
T704 EIV5EC 006A
AFC DET
TP703
C746 15P
C744 50V0.47
T703 EIV5EC013A
VCO ADJ.
C743 27P
C742 3P
TP704
R740 47K
C741 16V10
C740 0.01
C739 50V1
L718 68μ
C730 16V10
L717 68μ
R737 270
R738 330K
C734 0.01
C707 50V1

IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED BY THE SIGN ⚠ HAVE SPECIAL CHARACTERISTICS
IMPORTANT FOR SAFETY WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY
THE SPECIFIED PARTS.

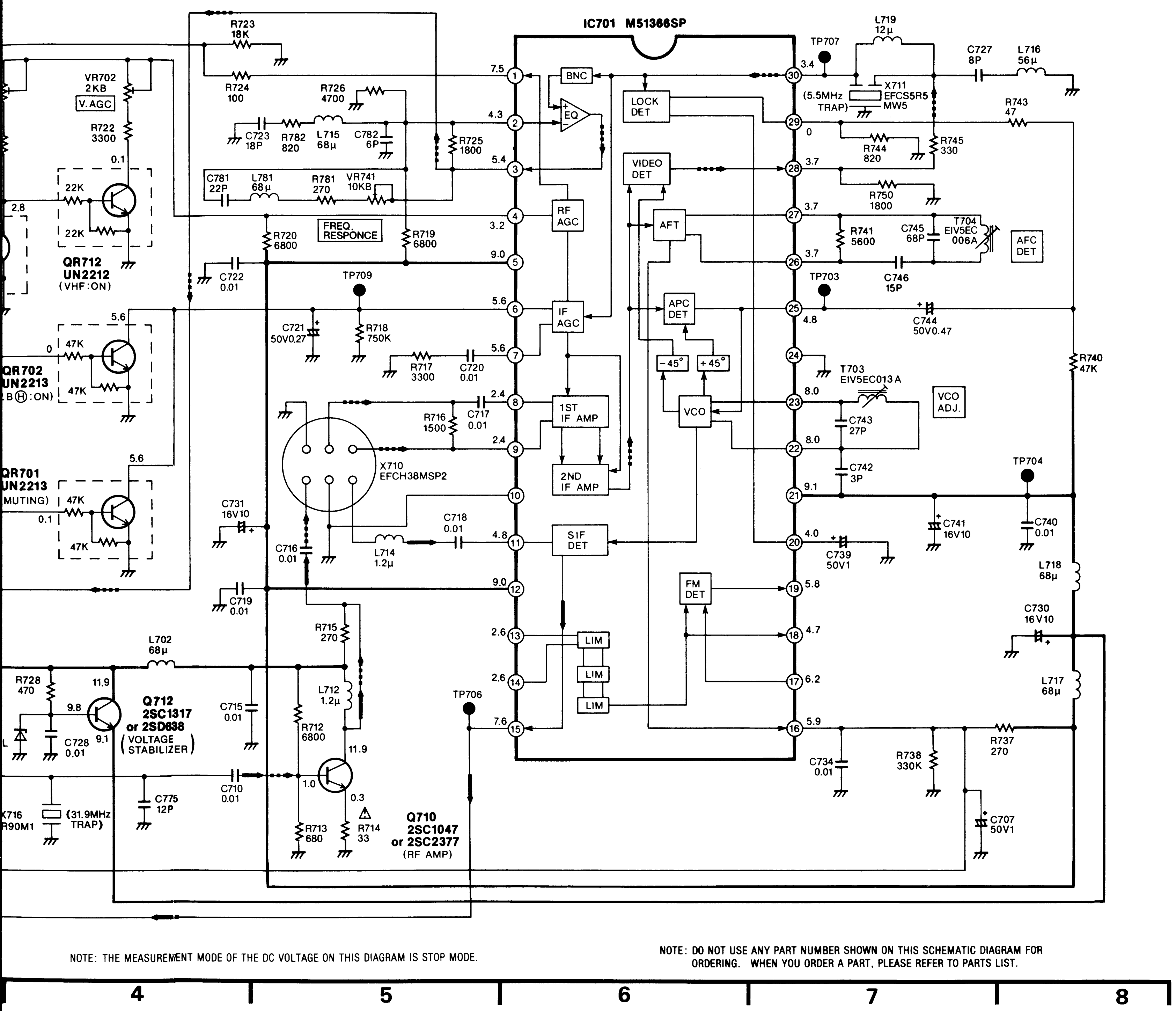
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
TIMER & VR Section

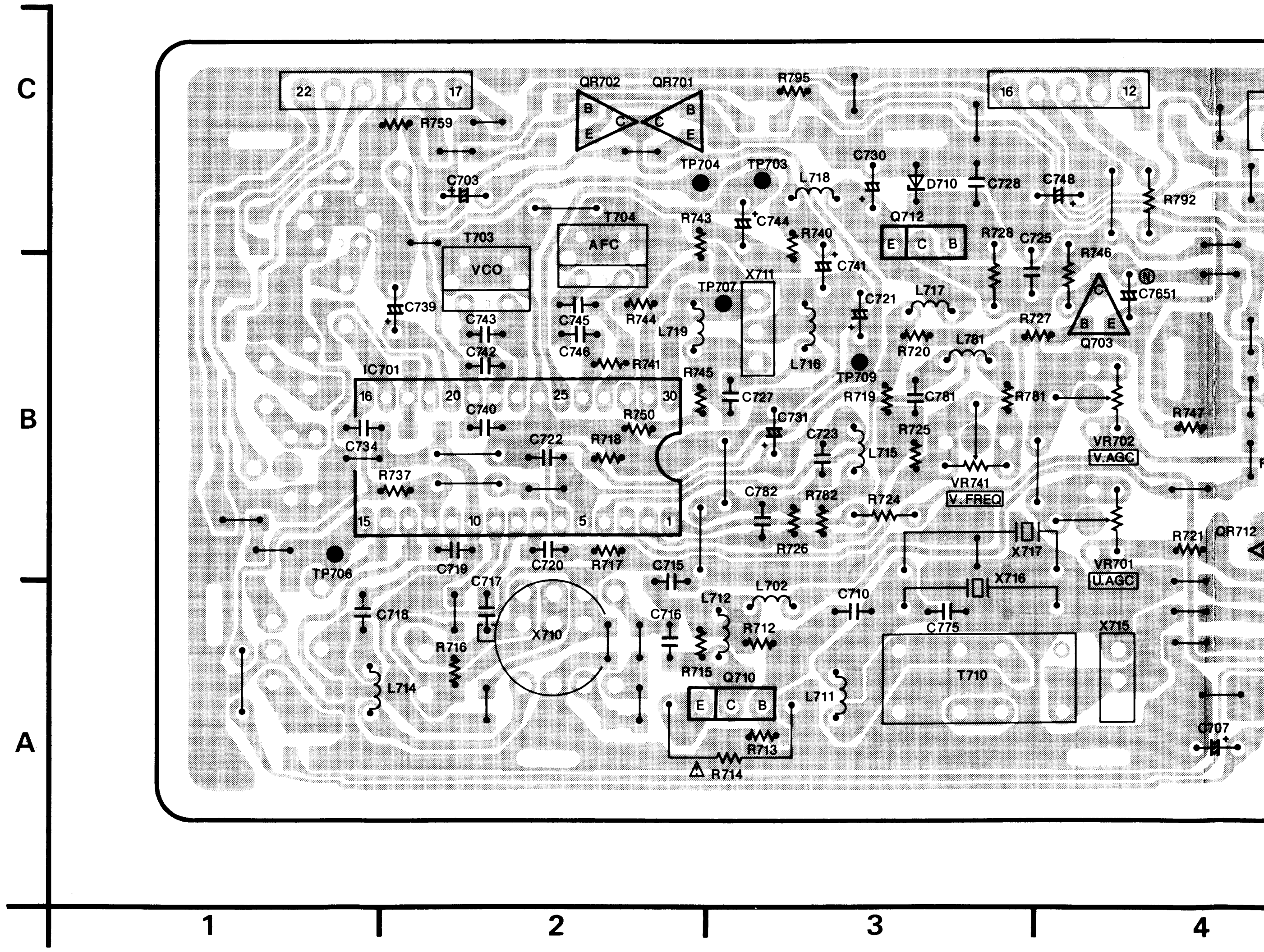
3-25. TV DEMODULATOR PACK C.B.A. (VEP07536A)

AUDIO SIGNAL PATH


IC701 M51366SP
BNC
EQ
LOCK DET
VIDEO DET
RF AGC
AFT
AFC DET
APC DET
IF AGC
-45°
+45°
VCO
VCO ADJ.
1ST IF AMP
2ND IF AMP
SIF DET
FM DET
LIM
FREQ. RESPONCE
V. AGC
VR702 2KB
VR741 10KB
R723 18K
R724 100
R726 4700
R722 3300
R725 1800
R720 6800
R719 6800
R718 750K
R717 3300
R716 1500
C723 18P
R782 820
L715 68µ
C782 6P
C781 22P
L781 68µ
R781 270
C722 0.01
C721 50V0.27
C720 0.01
C717 0.01
C718 0.01
L714 1.2µ
C716 0.01
C731 16V10
C719 0.01
X710 EFCH38MSP2
TP709
TP707
TP703
TP704
TP706
L719 12µ
C727 8P
L716 56µ
X711 EFCS5R5 MW5
(5.5MHz TRAP)
R743 47
R744 820
R745 330
R750 1800
R741 5600
C745 68P
T704 EIV5EC 006A
C746 15P
C744 50V0.47
T703 EIV5EC013A
C743 27P
C742 3P
R740 47K
C741 16V10
C740 0.01
C739 50V1
L718 68µ
C730 16V10
L717 68µ
R737 270
R738 330K
C734 0.01
C707 50V1
QR712 UN2212 (VHF:ON)
QR702 UN2213 (LB(H):ON)
QR701 UN2213 (MUTING)
22K
47K
L702 68µ
R728 470
Q712 2SC1317 or 2SD638 (VOLTAGE STABILIZER)
C728 0.01
C715 0.01
R715 270
L712 1.2µ
R712 6800
Q710 2SC1047 or 2SC2377 (RF AMP)
R713 680
R714 33
C710 0.01
C775 12P
X716 (31.9MHz TRAP)
4
5
6
7
8

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

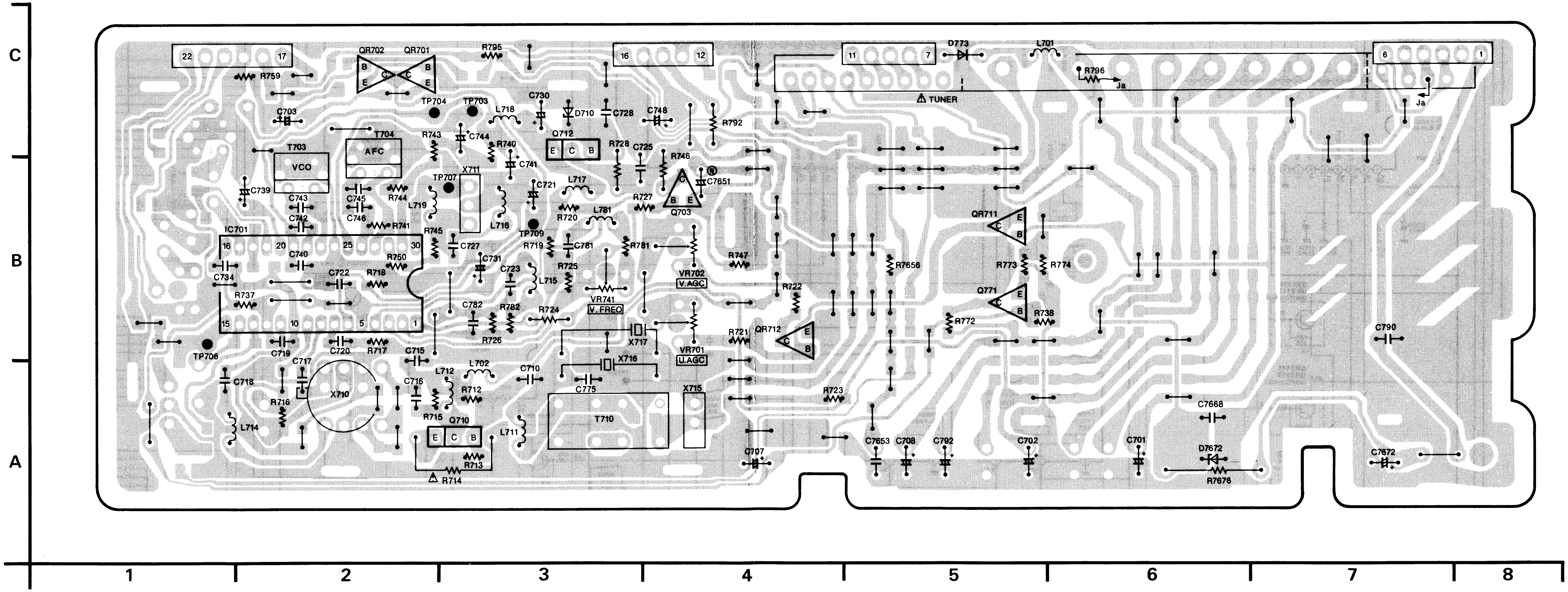
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.


C
B
A
1
2
3
4
QR702
QR701
R795
R759
C703
TP704
TP703
C730
L718
D710
C728
C748
R792
T703
VCO
T704
AFC
R743
C744
R740
C741
Q712
R728
C725
R746
C7651
C739
C743
C742
C745
C746
R744
R741
TP707
X711
L719
L716
C721
L717
R720
L781
R727
Q703
IC701
R745
C727
TP709
R719
C781
R781
C740
R750
C731
C723
R725
VR702 V.AGC
C734
R737
C722
R718
L715
VR741 V. FREQ
C782
R782
R724
R726
X717
R721
QR712
TP708
C719
C720
R717
C715
X716
VR701 U.AGC
C718
C717
X710
R716
C716
L712
L702
C710
C775
X715
R712
R715
Q710
T710
L714
L711
R713
R714
C707

3-25. TV DEMODULATOR PACK C.B.A. (VEP07536A)

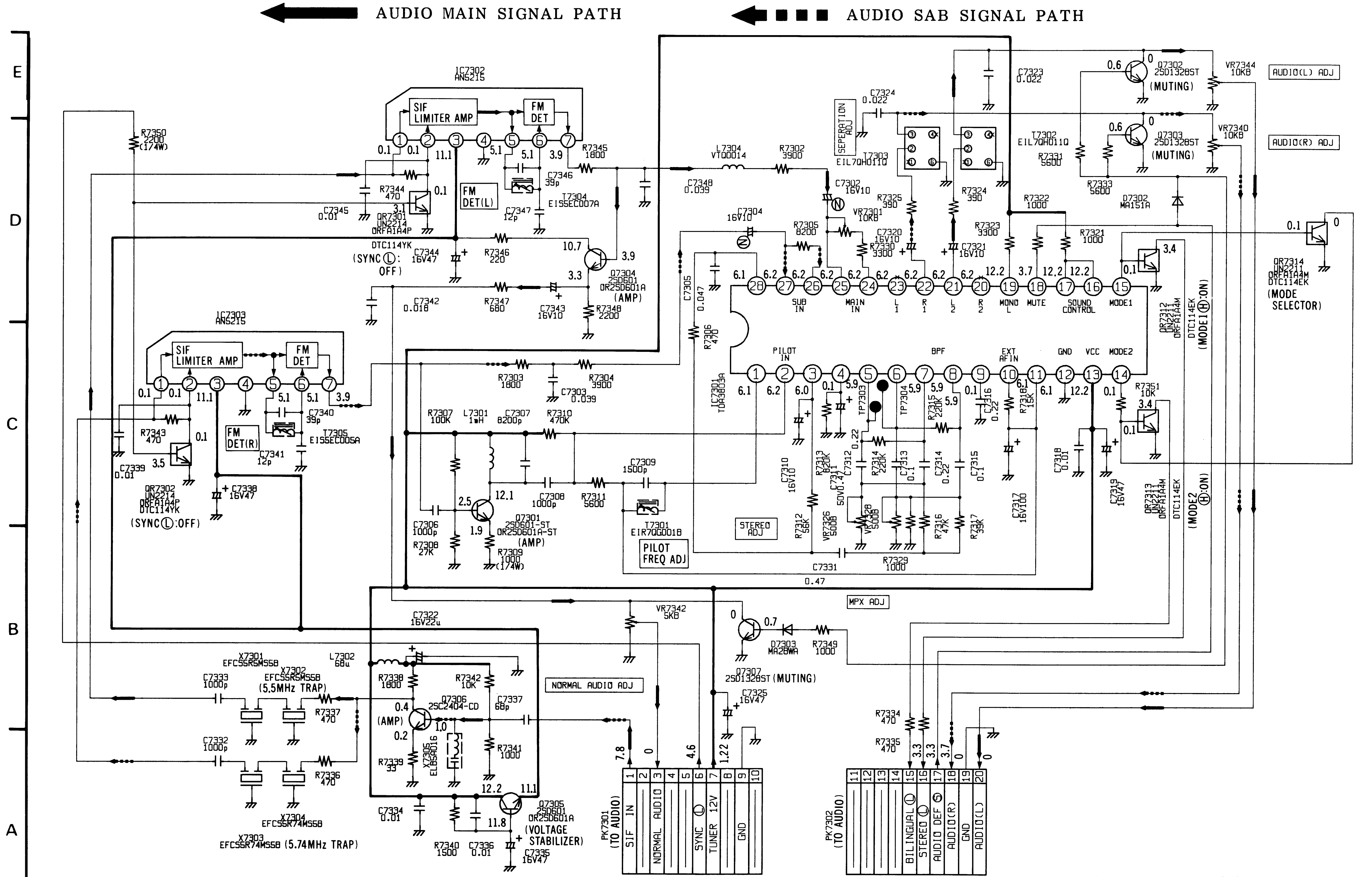
TV DEMODULATOR PACK C.B.A.	
Transistor	
Q703	B-4
Q710	A-3
Q712	C-3
Q771	B-5
Transistor & Resistor	
QR701	C-2
QR702	C-2
QR711	B-5
QR712	B-4
Integrated Circuit	
IC701	B-2
Test Point	
TP703	C-3
TP704	C-2
TP706	B-1
TP707	B-3
TP709	B-3
Adjustment	
T703	C-2
T704	C-2
VR701	B-4
VR702	B-4
VR741	B-3

ADDRESS INFORMATION



C
B
A
1
2
3
4
5
6
7
8
22
17
16
12
11
7
6
1
QR702
QR701
R795
D773
L701
R796
Ja
R759
TUNER
TP704
TP703
C730
C703
L718
D710
C728
C748
R792
T704
R743
C744
R740
Q712
E C B
R728
C725
T703
VCO
AFC
C741
R746
C739
X711
TP707
C721
L717
C7651
C743
C745
R744
L719
R727
C742
C746
R741
L716
R720
L781
Q703
IC701
16
20
25
30
R745
TP709
C727
R719
C781
R781
QR711
C740
R750
C731
R725
VR702
V.AGC
R747
R7656
R773
R774
C734
C722
R718
C723
L715
R722
R737
VR741
V.FREQ
Q771
15
10
5
1
C782
R782
R724
R772
R738
R726
X717
R721
QR712
C790
TP706
C719
C720
R717
C715
VR701
U.AGC
C717
X716
C718
L702
C710
L712
C716
X715
R723
R716
X710
R712
C775
T710
C7668
L714
R715
Q710
L711
E C B
C707
C7653
C708
C792
C702
C701
D7672
C7672
R713
R714
R7676

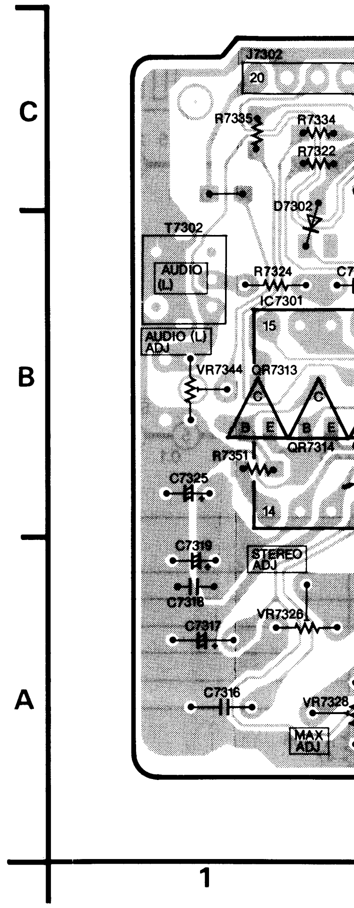
3-26. DECODER PACK SCHEMATIC DIAGRAM


AUDIO MAIN SIGNAL PATH
AUDIO SAB SIGNAL PATH
IC7302 AN5215
SIF LIMITER AMP
FM DET
FM DET(L)
R7350 2200 (1/4W)
R7344 470
QR7301 UN2214 DRFA1A4P DTC114YK
(SYNC Ⓛ: OFF)
C7345 0.01
C7344 16V47
R7346 220
R7345 1800
C7346 39p
T7304 EI55EC007A
C7347 12p
Q7304 2SD601 QR2SD601A (AMP)
R7347 680
C7343 16V10
R7348 2200
C7342 0.018
IC7303 AN5215
FM DET(R)
R7343 470
C7340 39p
T7305 EI55EC005A
C7341 12p
C7339 0.01
C7338 16V47
QR7302 UN2214 DRFA1A4P DTC114YK
(SYNC Ⓛ:OFF)
L7304 VT00014
R7302 3900
C7348 0.039
C7304 16V10
R7305 8200
C7305 0.047
R7306 470
SEPERATION ADJ
T7303 EIL70H011Q
C7324 0.022
C7302 16V10
VR7301 10KB
R7325 390
C7320 16V10
R7330 3300
R7324 390
C7321 16V10
R7323 3300
R7322 1000
R7321 1000
C7323 0.022
T7302 EIL70H011Q
R7331 5600
R7333 5600
Q7302 2SD1328ST (MUTING)
Q7303 2SD1328ST (MUTING)
VR7344 10KB
VR7340 10KB
AUDIO(L) ADJ
AUDIO(R) ADJ
D7302 MA151A
QR7314 UN2211 DRFA1A4M DTC114EK (MODE SELECTOR)
SUB IN
MAIN IN
L 1
R 1
L 2
R 2
MONO L
MUTE
SOUND CONTROL
MODE1
PILOT IN
BPF
EXT AFIN
GND
VCC
MODE2
IC7301 TDA3803A
QR7312 UN2211 DRFA1A4M DTC114EK (MODE1 Ⓗ:ON)
QR7313 UN2211 DRFA1A4M DTC114EK (MODE2 Ⓗ:ON)
R7351 10K
R7303 1800
R7304 3900
C7303 0.039
R7307 100K
L7301 1mH
C7307 8200p
R7310 470K
C7309 1500p
T7301 EIR70G001B
PILOT FREQ ADJ
C7306 1000p
R7308 27K
C7308 1000p
R7311 5600
Q7301 2SD601-ST QR2SD601A-ST (AMP)
R7309 1000 (1/4W)
TP7303
TP7304
C7310 16V10
R7312 56K
R7313 820K
C7311 SOV0.47
C7312 0.22
VR7326 500B
STEREO ADJ
VR7328 500B
R7314 220K
R7315 220K
C7313 0.1
C7314 0.22
R7316 47K
C7315 0.1
R7317 39K
C7316 0.22
R7318 15K
C7317 16V100
C7318 0.01
C7319 16V47
C7331 0.47
R7329 1000
MPX ADJ
VR7342 5KB
C7322 16V22u
D7303 MA26WA
R7349 1000
Q7307 2SD1328ST (MUTING)
C7325 16V47
X7301 EFCS5R5MS5B
X7302 EFCS5R5MS5B (5.5MHz TRAP)
C7333 1000p
R7337 470
C7332 1000p
R7336 470
X7304 EFCS5R74MS5B
X7303 EFCS5R74MS5B (5.74MHz TRAP)
L7302 68u
R7338 1800
R7342 10K
Q7306 2SC2404-CD (AMP)
C7337 68p
R7341 1000
R7339 33
X7305 EL05A016
C7334 0.01
R7340 1500
C7336 0.01
Q7305 2SD601 QR2SD601A (VOLTAGE STABILIZER)
C7335 16V47
NORMAL AUDIO ADJ
PK7301 (TO AUDIO)
SIF IN
NORMAL AUDIO
SYNC Ⓛ
TUNER 12V
GND
PK7302 (TO AUDIO)
R7334 470
R7335 470
BILINGUAL Ⓛ
STEREO Ⓛ
AUDIO DEF Ⓢ
AUDIO(R)
GND
AUDIO(L)
E
D
C
B
A
1
2
3
4
5
6
7

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

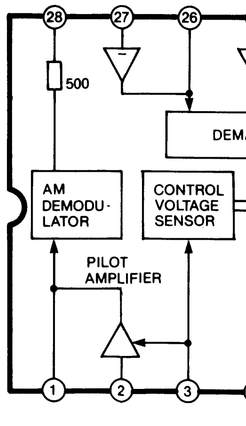
NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-27. DECODER P

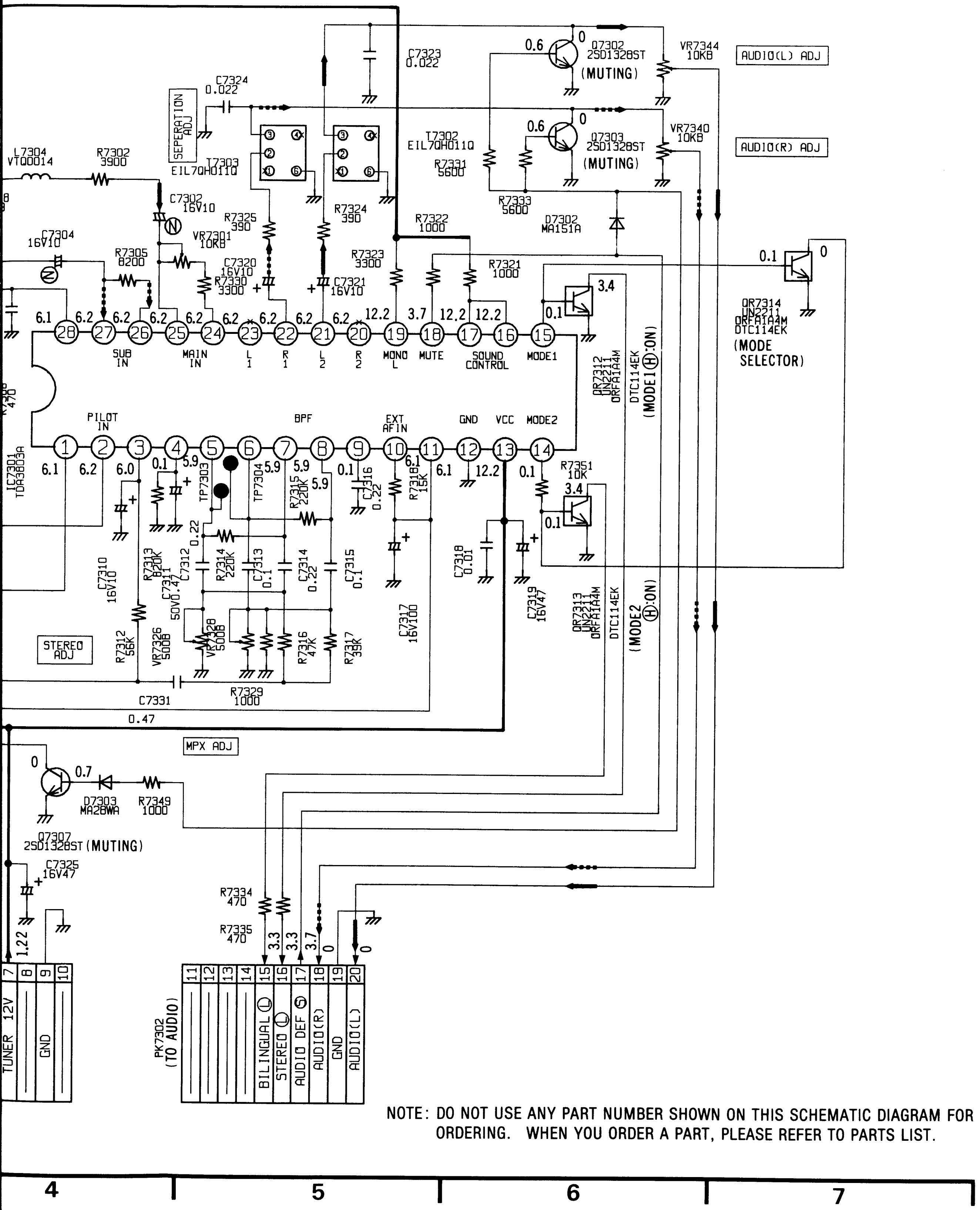

C
B
A
1
J7302
R7335
R7334
R7322
T7302
D7302
AUDIO (L)
AUDIO (J) ADJ
R7324
IC7301
VR7344
QR7313
R7351
QR7314
C7325
C7319
STEREO ADJ
C7318
VR7328
C7317
C7316
VR7326
MAX ADJ

IC BLOCK

IC7301 (TDA3803A

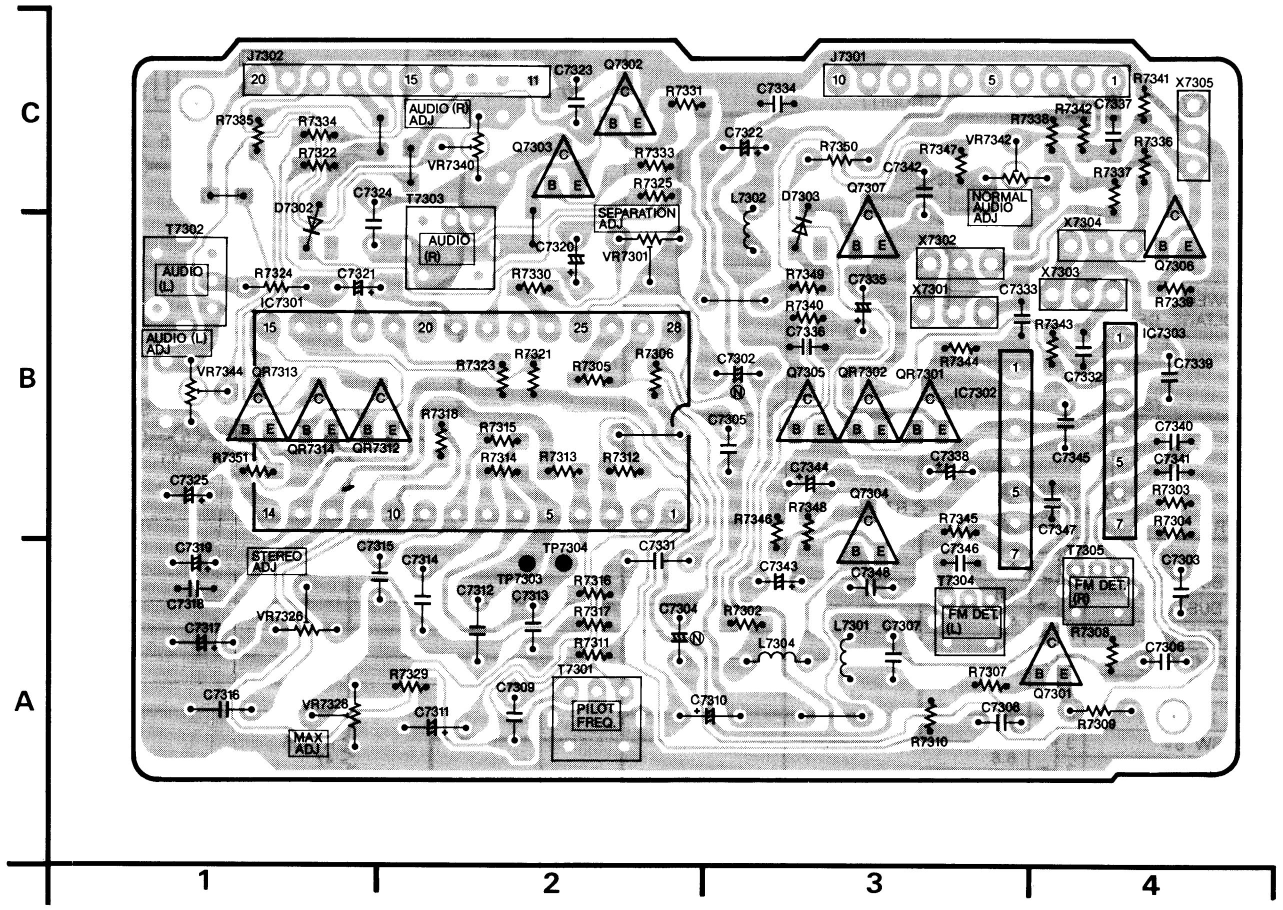

28
27
26
500
DEM
AM DEMODU-LATOR
CONTROL VOLTAGE SENSOR
PILOT AMPLIFIER
1
2
3

◀■ ■ ■ AUDIO SAB SIGNAL PATH


SEPERATION ADJ
T7303 EIL70H0110
T7302 EIL70H0110
Q7302 2SD1328ST (MUTING)
Q7303 2SD1328ST (MUTING)
VR7344 10KB
VR7340 10KB
AUDIO(L) ADJ
AUDIO(R) ADJ
D7302 MA151A
QR7314 UN2211 ORFA1A4M DTC114EK (MODE SELECTOR)
QR7312 UN2211 ORFA1A4M DTC114EK (MODE1 Ⓗ:ON)
QR7313 UN2211 ORFA1A4M DTC114EK (MODE2 Ⓗ:ON)
IC7301 TDA3803A
SUB IN
MAIN IN
MONO L
MUTE
SOUND CONTROL
MODE1
PILOT IN
BPF
EXT AF IN
GND
VCC
MODE2
TP7303
TP7304
STEREO ADJ
MPX ADJ
Q7307 2SD1328ST (MUTING)
D7303 MA28WA
R7349 1000
C7325 16V47
R7334 470
R7335 470
TUNER 12V
GND
PK7302 (TO AUDIO)
BILINGUAL Ⓛ
STEREO Ⓛ
AUDIO DEF Ⓗ
AUDIO(R)
GND
AUDIO(L)
4
5
6
7

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

3-27. DECODER PACK C.B.A. (VEP07537A)

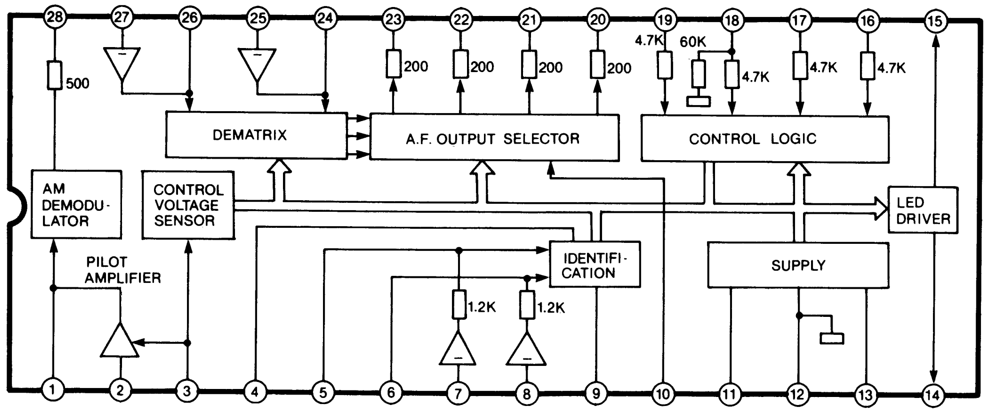

C
B
A
1
2
3
4
J7302
J7301
AUDIO (R) ADJ
SEPARATION ADJ
NORMAL AUDIO ADJ
AUDIO (L)
AUDIO (L) ADJ
AUDIO (R)
STEREO ADJ
FM DET (L)
FM DET (R)
PILOT FREQ.
MAX ADJ
IC7301
IC7302
IC7303

DECODER PACK C.B.A.	
Transistor	
Q7301	A-4
Q7302	C-2
Q7303	C-2
Q7304	B-3
Q7305	B-3
Q7306	B-4
Q7307	C-3
Transistor & Resistor	
QR7301	B-3
QR7302	B-3
QR7312	B-2
QR7313	B-1
QR7314	B-1
Integrated Circuit	
IC7301	B-1
IC7302	B-3
IC7303	B-4
Test Point	
TP7303	A-2
TP7304	A-2
Adjustment	
T7301	A-2
T7302	B-1
T7303	C-2
T7304	A-3
T7305	A-4
VR7301	B-2
VR7326	A-1
VR7328	A-1
VR7340	C-2
VR7342	C-3
VR7344	B-1

ADDRESS INFORMATION

IC BLOCK

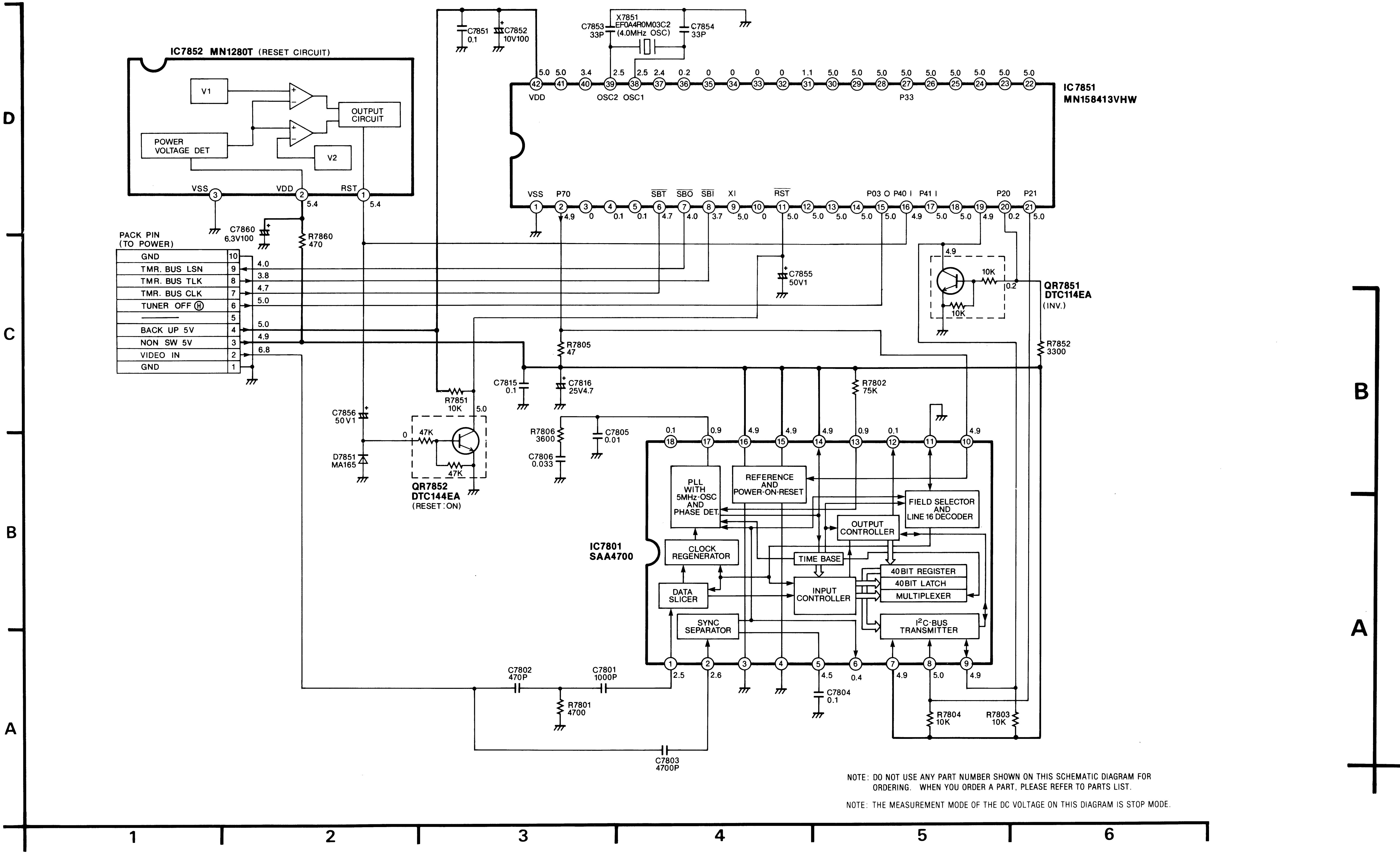
IC7301 (TDA3803A)


DEMATRIX
A.F. OUTPUT SELECTOR
CONTROL LOGIC
AM DEMODU-LATOR
CONTROL VOLTAGE SENSOR
LED DRIVER
PILOT AMPLIFIER
IDENTIFI-CATION
SUPPLY
500
200
4.7K
60K
1.2K

Next Page:
VPS PACK Section

3-28. VPS PACK SCHEMATIC DIAGRAM

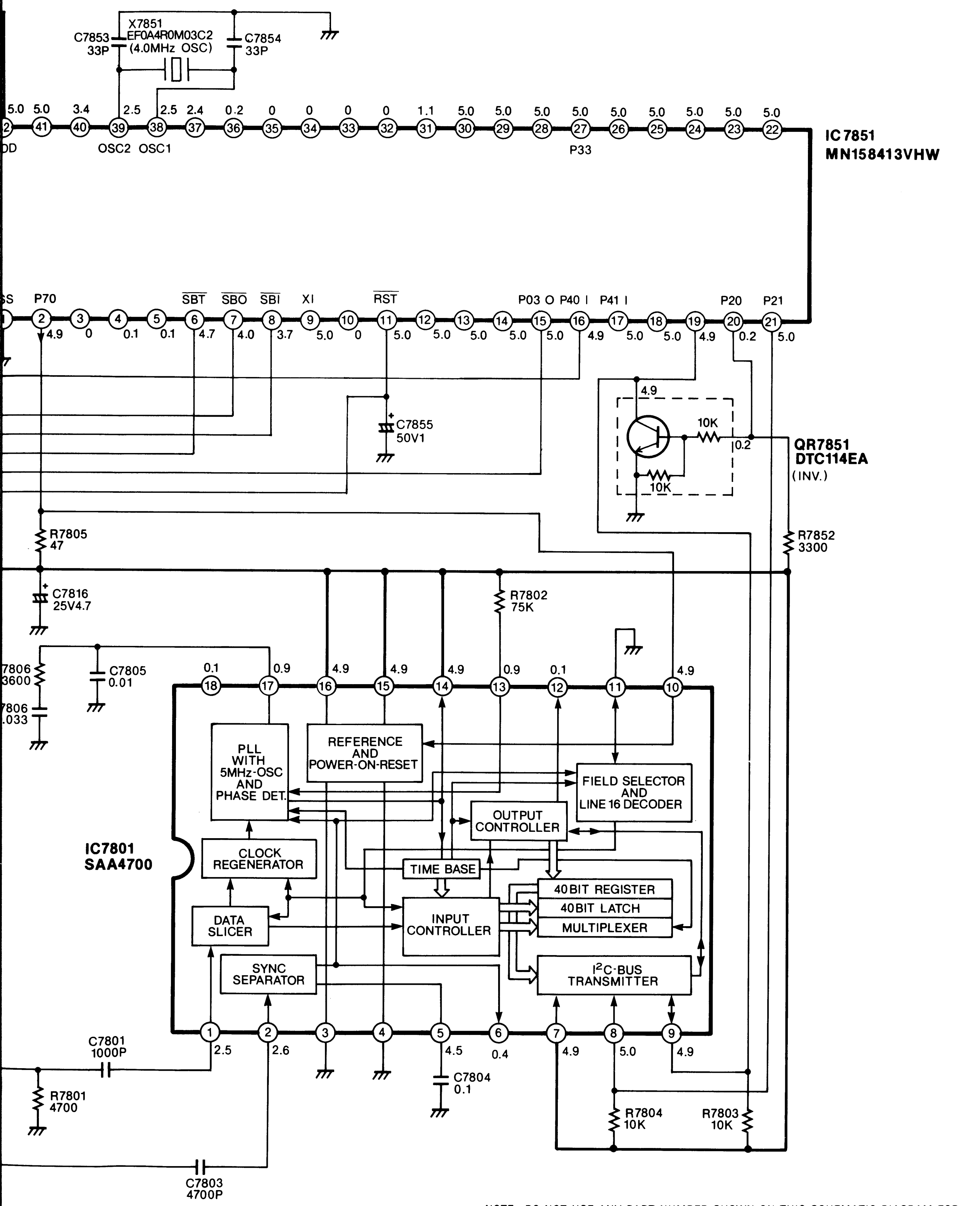
3-29.



IC7852 MN1280T (RESET CIRCUIT)
V1
V2
POWER VOLTAGE DET
OUTPUT CIRCUIT
VSS
VDD
RST
5.4
C7860 6.3V100
R7860 470
PACK PIN (TO POWER)
GND 10
TMR. BUS LSN 9
TMR. BUS TLK 8
TMR. BUS CLK 7
TUNER OFF Ⓗ 6
5
BACK UP 5V 4
NON SW 5V 3
VIDEO IN 2
GND 1
4.0
3.8
4.7
5.0
5.0
4.9
6.8
C7851 0.1
C7852 10V100
X7851 EF0A4R0M03C2 (4.0MHz OSC)
C7853 33P
C7854 33P
IC7851 MN158413VHW
VDD
OSC2 OSC1
P33
VSS P70
SBT SBO SBI XI RST
P03 O P40 I P41 I
P20 P21
C7855 50V1
QR7851 DTC114EA (INV.)
10K
R7852 3300
R7805 47
C7815 0.1
C7816 25V4.7
R7851 10K
C7856 50V1
D7851 MA165
47K
QR7852 DTC144EA (RESET:ON)
R7806 3600
C7806 0.033
C7805 0.01
R7802 75K
IC7801 SAA4700
PLL WITH 5MHz-OSC AND PHASE DET.
REFERENCE AND POWER-ON-RESET
FIELD SELECTOR AND LINE 16 DECODER
OUTPUT CONTROLLER
CLOCK REGENERATOR
TIME BASE
DATA SLICER
INPUT CONTROLLER
40BIT REGISTER
40BIT LATCH
MULTIPLEXER
SYNC SEPARATOR
I²C-BUS TRANSMITTER
C7802 470P
C7801 1000P
R7801 4700
C7803 4700P
C7804 0.1
R7804 10K
R7803 10K
D
C
B
A
1
2
3
4
5
6

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.



X7851
EF0A4R0M03C2
(4.0MHz OSC)
C7853
33P
C7854
33P
OSC2 OSC1
P33
IC7851
MN158413VHW
P70
SBT SBO SBI
XI
RST
P03 O P40 I P41 I
P20 P21
C7855
50V1
10K
10K
0.2
4.9
QR7851
DTC114EA
(INV.)
R7805
47
R7852
3300
C7816
25V4.7
R7802
75K
C7805
0.01
IC7801
SAA4700
PLL WITH 5MHz-OSC AND PHASE DET.
REFERENCE AND POWER-ON-RESET
FIELD SELECTOR AND LINE 16 DECODER
OUTPUT CONTROLLER
CLOCK REGENERATOR
TIME BASE
40BIT REGISTER
40BIT LATCH
MULTIPLEXER
DATA SLICER
INPUT CONTROLLER
SYNC SEPARATOR
I²C-BUS TRANSMITTER
C7801
1000P
R7801
4700
C7804
0.1
R7804
10K
R7803
10K
C7803
4700P

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

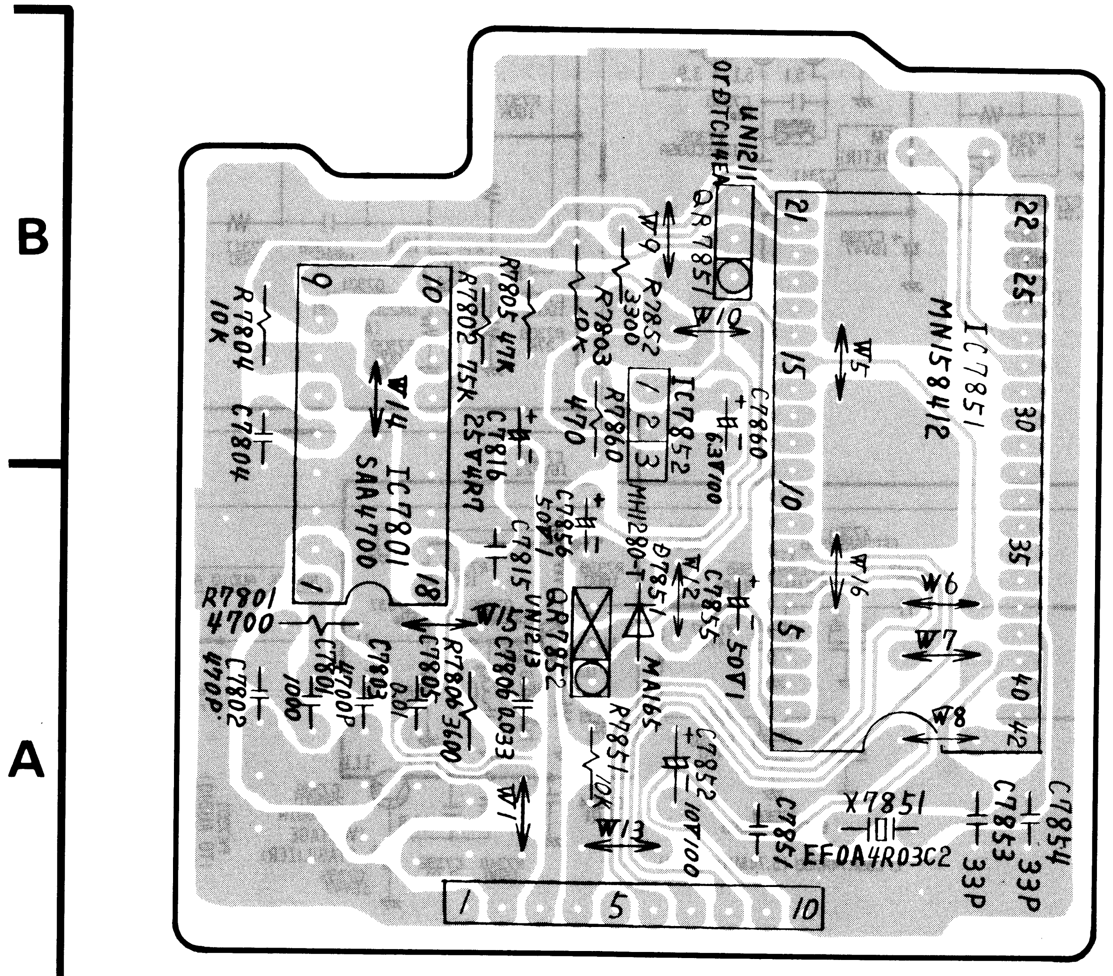
NOTE: THE MEASUREMENT MODE OF THE DC VOLTAGE ON THIS DIAGRAM IS STOP MODE.

4 5 6

3-29. VPS PACK C.B.A. (VEP07538A)

VPS PACK C.B.A.	
Transistor & Resistor	
QR7851 QR7852	B-2 A-1
Integrated Circuit	
IC7801 IC7851 IC7852	A-1 B-2 B-2

ADDRESS INFORMATION



B
A
IC7851
MN158412
IC7801
SAA4700
IC7852
MH1280-1
QR7851
QR7852
UN1211 or DTC114EA
R7804 10K
R7802 75K
R7805 47K
R7803 10K
R7852 3300
R7860 470
R7801 4700
R7806 3600
R7851 10K
C7804
C7816 25V4R7
C7815
C7860 63V100
C7856
C7855 50V1
C7801 1000
C7802 4700P
C7803 4700P
C7805 0.01
C7806 0.033
C7852 10V100
C7851
X7851
EF0A4R0C2
C7853 33P
C7854 33P
D7851
MA165
W4 W5 W6 W7 W8 W9 W10 W11 W12 W13 W14 W15 W16

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS CIRCUIT BOARD FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

1 2

MAIN C.B.A. ADDRESS INFORMATION

SYSTEM CONTROL Section	
Transistor	
Q601	G-8
Q1401	C-3
Q1501	G-5
Q1502	G-6
Q6001	C-6
Q6002	C-6
Q6003	C-6
Q6004	C-5
Q6006	E-10
Q6007	E-10
Q6008	E-9
Q6011	A-5
Q6012	C-4
Q6013	B-4
Q6014	C-7
Q6015	B-7
Transistor & Resistor	
QR6001	C-5
QR6002	C-6
QR6003	C-6
QR6004	C-5
QR6005	D-5
QR6006	D-5
QR6007	C-5
QR6008	D-5
QR6009	C-5
QR6010	C-5
QR6011	D-5
QR6013	D-5
QR6014	C-9
QR6015	D-7
QR6016	D-8
QR6017	D-7
QR6018	C-6
QR6019	C-8
QR6020	C-8
QR6021	D-5
QR6022	D-5
QR6024	E-8
QR6025	D-8
QR6027	D-6
Integrated Circuit	
IC1501	C-2
IC1502	C-1
IC6001	D-7
IC6002	C-7
IC6003	C-6
IC6004	B-5
IC6005	E-7
IC6006	C-8
IC6007	D-8
Test Point	
TP6010	D-6
TP6011	E-6
Connector	
P1502	C-3
P1504	H-3
P1507	G-5
P1508	G-6
P4004	C-6
P6001	D-10
P6002	F-7
P7402	C-4
P7404	C-5

ADDRESS INFORMATION

POWER Section	
Transistor	
Q1001	H-12
Q1002	H-12
Q1003	H-13
Q1004	G-11
Q1005	G-11
Transistor & Resistor	
QR1001	G-12
QR1005	E-14
QR1006	G-12
QR1007	E-4
QR1012	G-12
Test Point	
TP1002	H-11
TP1003	G-11
Connector	
P1001	H-11
P6003	D-4
P7401	D-4

ADDRESS INFORMATION

LUMINANCE & CHROMINANCE Section	
Transistor	
Q3001	C-12
Q3002	C-10
Q3003	D-11
Q3004	E-11
Q3005	D-11
Q3006	C-11
Q3007	F-12
Q3009	F-12
Q3010	F-12
Q3011	D-11
Q3013	E-11
Transistor & Resistor	
QR3001	C-10
QR3002	C-10
QR3003	B-10
QR3004	B-11
QR3005	C-10
QR3006	E-11
QR3007	C-11
QR3008	C-11
QR3009	F-12
QR3010	E-12
QR3011	E-12
QR3012	E-11
QR3013	C-10
Integrated Circuit	
IC3001	F-11
Test Point	
TP3001	C-10
TP3002	C-12
Adjustment	
VR3012	D-12
VR3013	E-12
VR3020	F-11
Connector	
P3001	C-10

ADDRESS INFORMATION

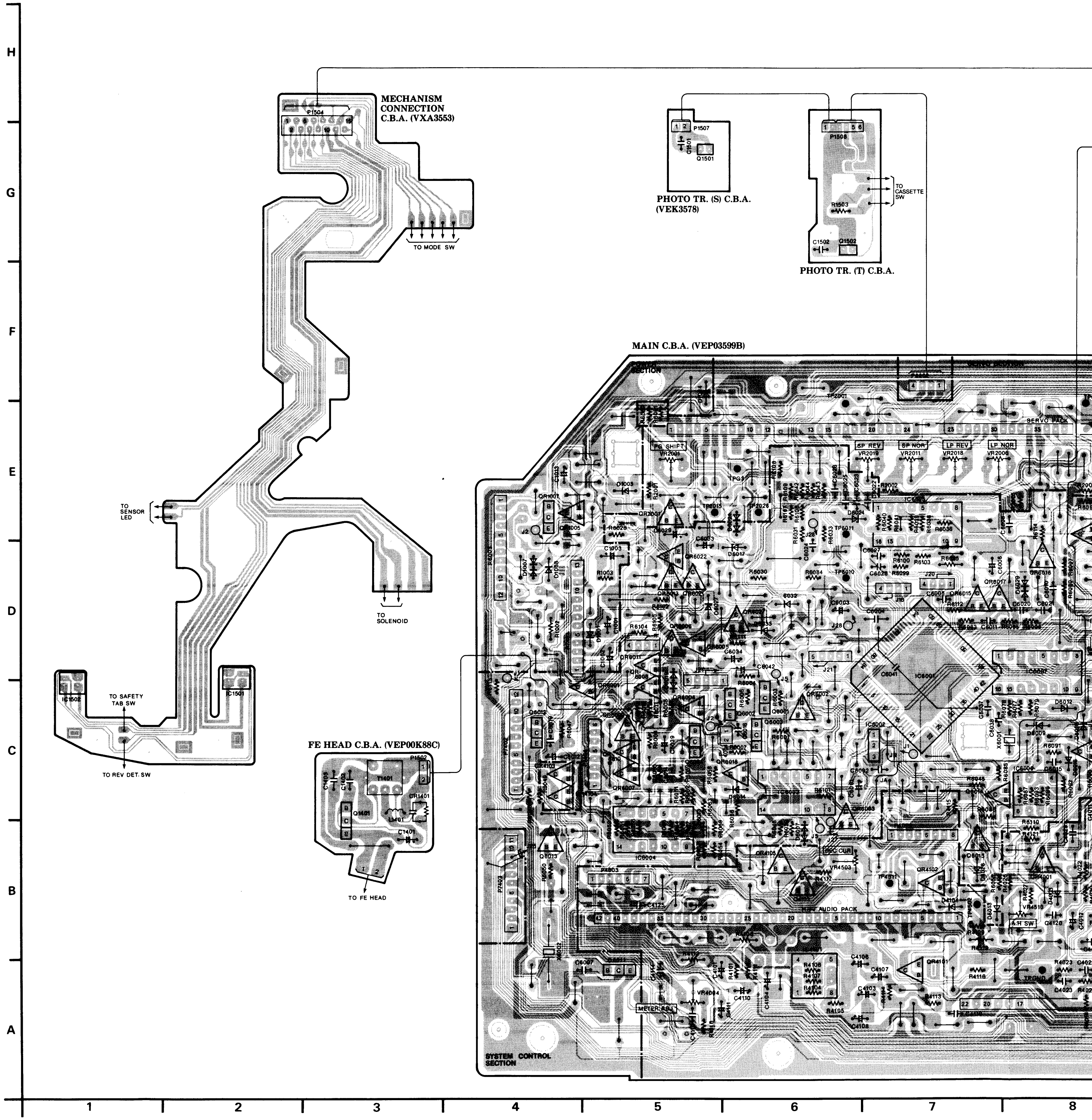
SERVO Section	
Transistor & Resistor	
QR2001	E-5
Test Point	
TP2001	E-6
TP2002	E-8
TP2015	E-5
TP2026	E-6
TP2031	E-9
TP2032	E-9
TPG1	E-8
TPG3	E-6
Adjustment	
VR2001	E-5
VR2006	E-7
VR2011	E-7
VR2013	E-8
VR2018	E-7
VR2019	E-7
Connector	
P2001	F-9
P2002	F-10

ADDRESS INFORMATION

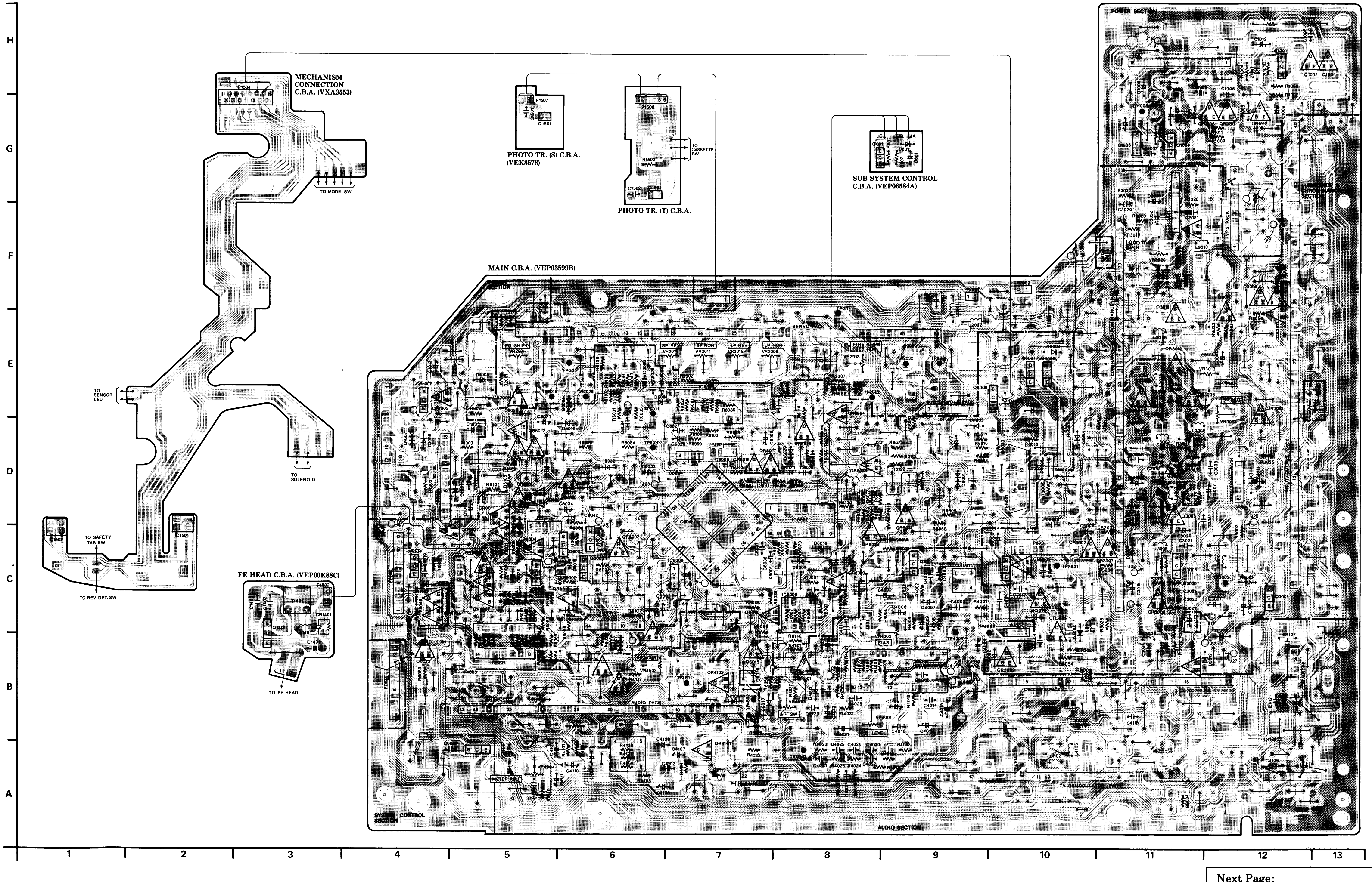
AUDIO Section	
Transistor	
Q4001	C-9
Q4103	B-6
Transistor & Resistor	
QR4001	B-8
QR4101	A-7
QR4102	B-7
QR4103	C-4
QR4104	C-4
QR4105	B-6
Integrated Circuit	
IC4001	B-9
IC4101	B-6
Test Point	
TP4002	C-9
TP4003	B-9
TP4502	B-7
TP4511	B-7
TPGND	A-8
Adjustment	
VR4001	B-8
VR4002	B-9
VR4004	A-5
VR4503	B-6
VR4510	B-8
Connector	
P4001	C-10
P4002	B-7
P4003	B-5
P7403	B-4

ADDRESS INFORMATION

3-30. MAIN C.B.A. (VEP03599B)

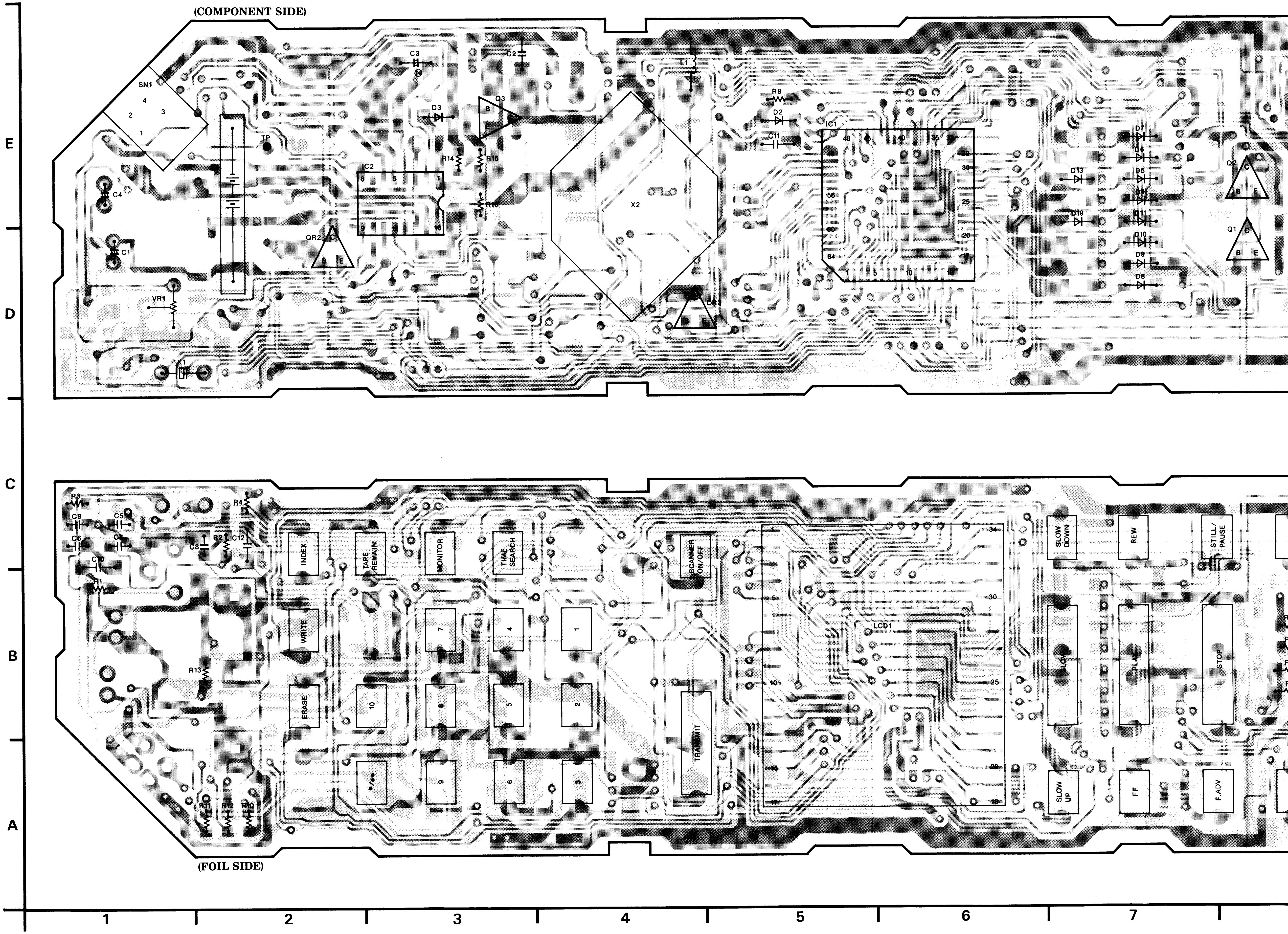

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
MECHANISM CONNECTION C.B.A. (VXA3553)
P1504
TO MODE SW
PHOTO TR. (S) C.B.A. (VEK3578)
P1507
Q1501
PHOTO TR. (T) C.B.A.
P1508
R1503
C1502
Q1502
TO CASSETTE SW
TO SENSOR LED
TO SOLENOID
TO SAFETY TAB SW
TO REV DET. SW
IC1502
IC1501
FE HEAD C.B.A. (VEP00K88C)
P1502
Q1401
L1401
C1401
TO FE HEAD
MAIN C.B.A. (VEP03599B)
SERVO PACK
AUDIO PACK
SYSTEM CONTROL SECTION

3-30. MAIN C.B.A. (VEP03599B)

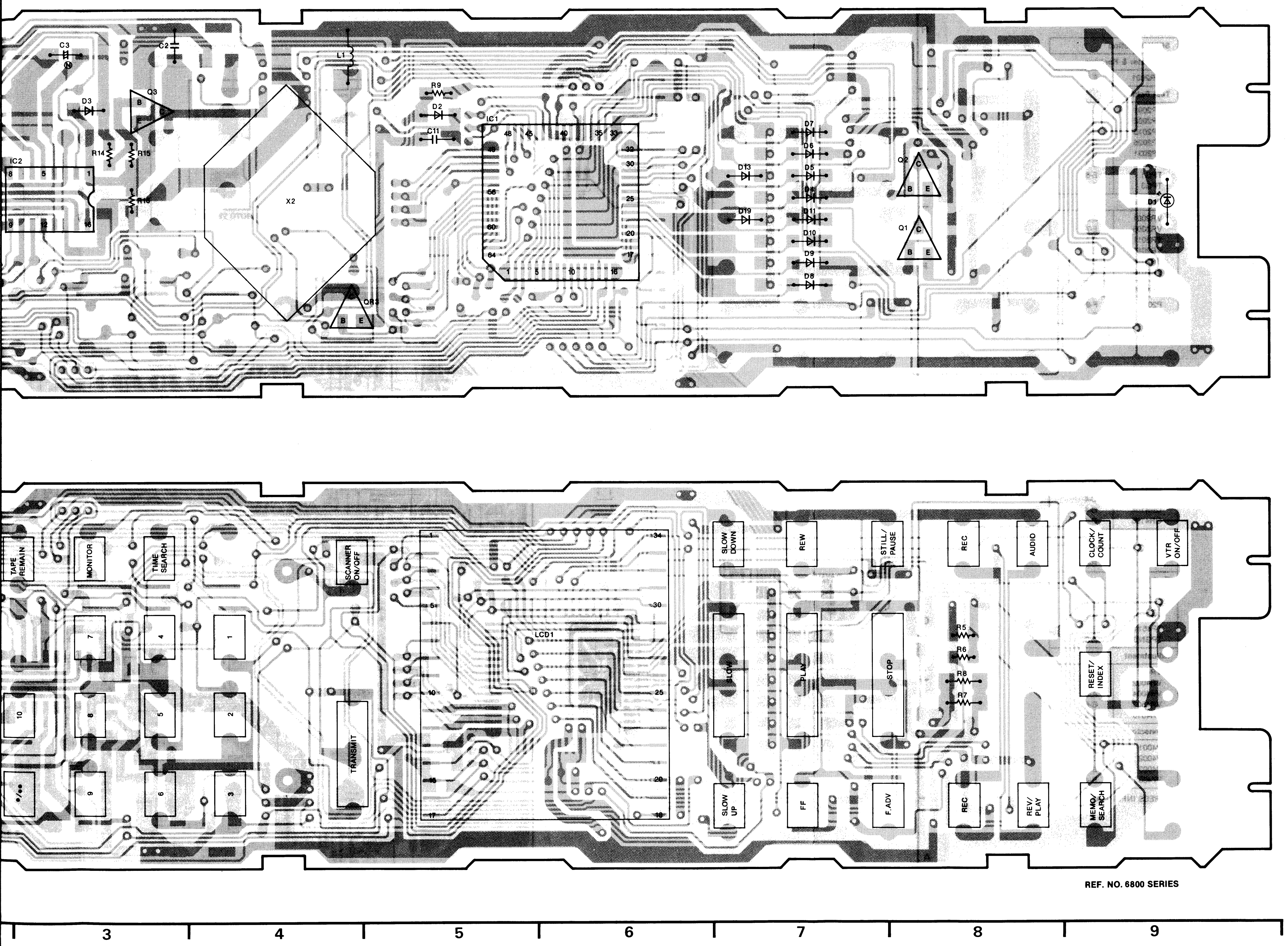

H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
MECHANISM CONNECTION C.B.A. (VXA3553)
P1504
TO MODE SW
TO SENSOR LED
TO SOLENOID
TO SAFETY TAB SW
TO REV DET. SW
IC1502
IC1501
PHOTO TR. (S) C.B.A. (VEK3578)
P1507
Q1501
PHOTO TR. (T) C.B.A.
P1508
TO CASSETTE SW
R1503
C1502
Q1502
SUB SYSTEM CONTROL C.B.A. (VEP06584A)
MAIN C.B.A. (VEP03599B)
FE HEAD C.B.A. (VEP00K88C)
P1402
T1401
Q1401
TO FE HEAD
POWER SECTION
SERVO PACK
PG SHIFT
SP REV
SP NOR
LP REV
LP NOR
FINE SLOW
IC6001
HiFi AUDIO PACK
METER PACK
DECODER PACK
TV DEMODULATOR PACK
VPS PACK
LP PBO
AUTO TRACK GAIN
A/H SW
REC CUR
BIAS
P.B. LEVEL
SYSTEM CONTROL SECTION
AUDIO SECTION

Next Page:
REMOTE CONTROLLER Section

3-31. REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) C.B.A. (VEP66079B)


(COMPONENT SIDE)
SN1
TP
C3
C2
L1
D3
Q3
R9
D2
C11
IC1
R14
R15
R16
IC2
X2
C4
C1
QR2
QR3
VR1
X1
D7
D6
D5
D13
D19
D11
D10
D9
D8
Q2
Q1
R3
C9
C5
C6
C7
C10
R1
R4
R2
C12
C8
R13
R11
R12
R10
INDEX
TAPE REMAIN
MONITOR
TIME SEARCH
SCANNER ON/OFF
WRITE
ERASE
TRANSMIT
LCD1
SLOW DOWN
REW
STILL/ PAUSE
SLOW
PLAY
STOP
SLOW UP
FF
F.ADV
(FOIL SIDE)
E
D
C
B
A
1
2
3
4
5
6
7

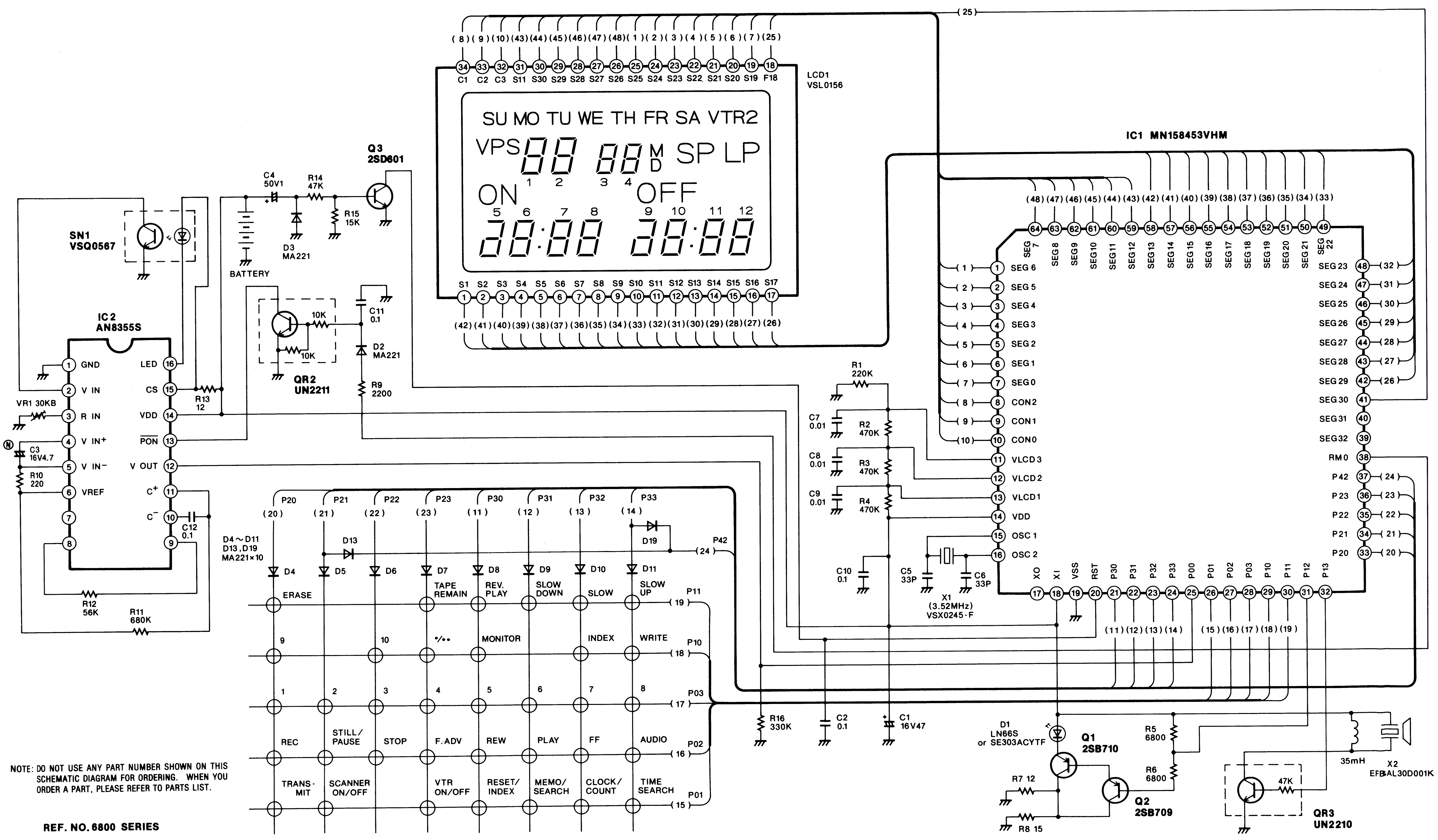
IN DIGITAL SCANNER) C.B.A. (VEP66079B)


C3
C2
L1
D3
Q3
B
E
C
R14
R15
R16
IC2
8
5
1
9
12
16
X2
R9
D2
IC1
C11
48
45
40
35
33
32
30
25
20
17
56
60
64
1
5
10
16
D7
D6
D5
D13
D19
D11
D10
D9
D8
Q2
Q1
D1
TAPE REMAIN
MONITOR
TIME SEARCH
SCANNER ON/OFF
7
4
1
10
8
5
2
•/••
9
6
3
TRANSMIT
LCD1
1
5
10
15
17
34
30
25
20
18
SLOW DOWN
SLOW
SLOW UP
REW
PLAY
FF
STILL/PAUSE
STOP
F.ADV
REC
R5
R6
R8
R7
REC
AUDIO
REV/PLAY
CLOCK/COUNT
RESET/INDEX
MEMO/SEARCH
VTR ON/OFF
3
4
5
6
7
8
9

REF. NO. 6800 SERIES

3-32. REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) SCHEMATIC DIAGRAM

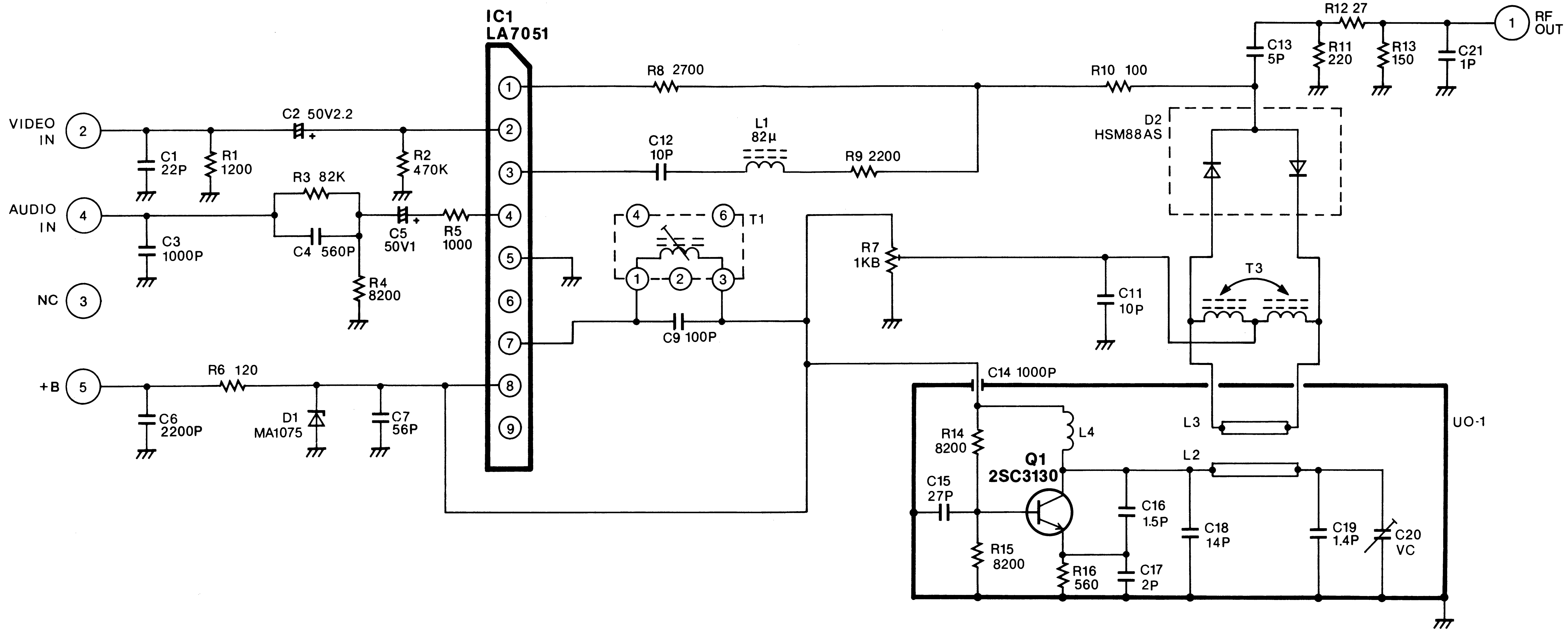
— UNIT NO.: VEQ0910 —


LCD1
VSL0156
C1 C2 C3 S11 S30 S29 S28 S27 S26 S25 S24 S23 S22 S21 S20 S19 F18
SU MO TU WE TH FR SA VTR2
VPS 88 88 M D SP LP
ON 1 2 3 4 OFF
5 6 7 8 9 10 11 12
28:88 28:88
S1 S2 S3 S4 S5 S6 S7 S8 S9 S10 S11 S12 S13 S14 S15 S16 S17
IC1 MN158453VHM
SEG 6
SEG 5
SEG 4
SEG 3
SEG 2
SEG 1
SEG 0
CON2
CON1
CON0
VLCD 3
VLCD 2
VLCD 1
VDD
OSC 1
OSC 2
SEG 7
SEG 8
SEG 9
SEG 10
SEG 11
SEG 12
SEG 13
SEG 14
SEG 15
SEG 16
SEG 17
SEG 18
SEG 19
SEG 20
SEG 21
SEG 22
SEG 23
SEG 24
SEG 25
SEG 26
SEG 27
SEG 28
SEG 29
SEG 30
SEG 31
SEG 32
RM0
P42
P23
P22
P21
P20
XO
XI
VSS
RST
P30
P31
P32
P33
P00
P01
P02
P03
P10
P11
P12
P13
Q3
2SD601
C4
50V1
R14
47K
R15
15K
D3
MA221
BATTERY
SN1
VSQ0567
IC2
AN8355S
GND
V IN
R IN
V IN+
V IN−
VREF
LED
CS
VDD
PON
V OUT
C+
C−
VR1 30KB
C3
16V4.7
R10
220
R13
12
C12
0.1
R12
56K
R11
680K
QR2
UN2211
10K
10K
C11
0.1
D2
MA221
R9
2200
R1
220K
C7
0.01
R2
470K
C8
0.01
R3
470K
C9
0.01
R4
470K
C10
0.1
C5
33P
C6
33P
X1
(3.52MHz)
VSX0245-F
D4~D11
D13, D19
MA221×10
P20 P21 P22 P23 P30 P31 P32 P33
D4 D5 D6 D7 D8 D9 D10 D11
D13
D19
P42
ERASE
TAPE REMAIN
REV. PLAY
SLOW DOWN
SLOW
SLOW UP
P11
9
10
*/••
MONITOR
INDEX
WRITE
P10
1 2 3 4 5 6 7 8
P03
REC
STILL/ PAUSE
STOP
F.ADV
REW
PLAY
FF
AUDIO
P02
TRANS-MIT
SCANNER ON/OFF
VTR ON/OFF
RESET/ INDEX
MEMO/ SEARCH
CLOCK/ COUNT
TIME SEARCH
P01
R16
330K
C2
0.1
C1
16V47
D1
LN66S
or SE303ACYTF
Q1
2SB710
R5
6800
R6
6800
R7 12
R8 15
Q2
2SB709
47K
QR3
UN2210
35mH
X2
EFBAL30D001K

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

REF. NO. 6800 SERIES

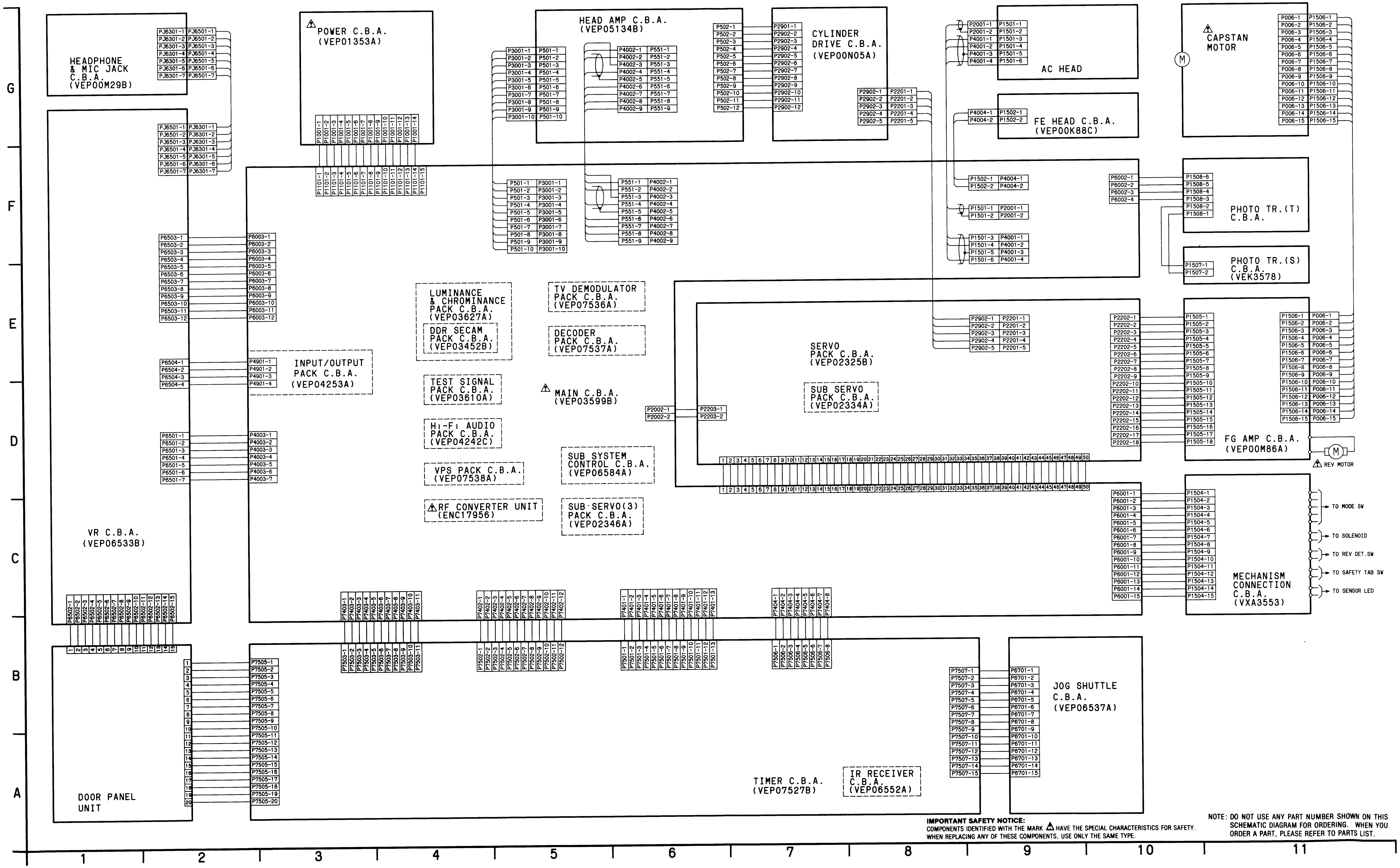
3-33. RF CONVERTER SCHEMATIC DIAGRAM (ENC17956)


IC1
LA7051
VIDEO IN
AUDIO IN
NC
+B
RF OUT
C1 22P
R1 1200
C2 50V2.2
R2 470K
R3 82K
C3 1000P
C4 560P
C5 50V1
R4 8200
R5 1000
R6 120
C6 2200P
D1 MA1075
C7 56P
R8 2700
C12 10P
L1 82μ
R9 2200
T1
C9 100P
R7 1KB
C11 10P
R10 100
R12 27
C13 5P
R11 220
R13 150
C21 1P
D2 HSM88AS
T3
C14 1000P
UO-1
L3
L2
L4
R14 8200
Q1 2SC3130
C15 27P
R15 8200
R16 560
C16 1.5P
C17 2P
C18 14P
C19 1.4P
C20 VC

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

Back Page:
REMOTE CONTROLLER Section

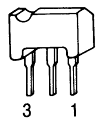
3-34. INTERCONNECTION SCHEMATIC DIAGRAM


HEADPHONE & MIC JACK C.B.A. (VEP00M29B)
POWER C.B.A. (VEP01353A)
HEAD AMP C.B.A. (VEP05134B)
CYLINDER DRIVE C.B.A. (VEP00N05A)
AC HEAD
CAPSTAN MOTOR
FE HEAD C.B.A. (VEP00K88C)
PHOTO TR.(T) C.B.A.
PHOTO TR.(S) C.B.A. (VEK3578)
LUMINANCE & CHROMINANCE PACK C.B.A. (VEP03627A)
DDR SECAM PACK C.B.A. (VEP03452B)
TV DEMODULATOR PACK C.B.A. (VEP07536A)
DECODER PACK C.B.A. (VEP07537A)
INPUT/OUTPUT PACK C.B.A. (VEP04253A)
TEST SIGNAL PACK C.B.A. (VEP03610A)
MAIN C.B.A. (VEP03599B)
Hi-Fi AUDIO PACK C.B.A. (VEP04242C)
VPS PACK C.B.A. (VEP07538A)
SUB SYSTEM CONTROL C.B.A. (VEP06584A)
RF CONVERTER UNIT (ENC17956)
SUB·SERVO(3) PACK C.B.A. (VEP02346A)
SERVO PACK C.B.A. (VEP02325B)
SUB SERVO PACK C.B.A. (VEP02334A)
FG AMP C.B.A. (VEP00M86A)
REV MOTOR
MECHANISM CONNECTION C.B.A. (VXA3553)
TO MODE SW
TO SOLENOID
TO REV DET.SW
TO SAFETY TAB SW
TO SENSOR LED
VR C.B.A. (VEP06533B)
DOOR PANEL UNIT
TIMER C.B.A. (VEP07527B)
IR RECEIVER C.B.A. (VEP06552A)
JOG SHUTTLE C.B.A. (VEP06537A)
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11

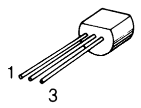
IMPORTANT SAFETY NOTICE:
COMPONENTS IDENTIFIED WITH THE MARK ⚠ HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY.
WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY THE SAME TYPE.

NOTE: DO NOT USE ANY PART NUMBER SHOWN ON THIS SCHEMATIC DIAGRAM FOR ORDERING. WHEN YOU ORDER A PART, PLEASE REFER TO PARTS LIST.

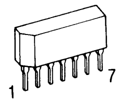
GENERAL CIRCUIT PARTS



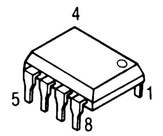
MN1280L
MN1280R
MN1280T



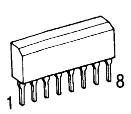
μPC78L05J
μPC78L06J



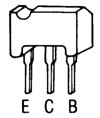
AN3396
AN5215



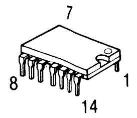
LM358P
LM393P
MSM6965-3R3
RC4560DD
AN6562
μPC358C
AN6914
NJM4560DD



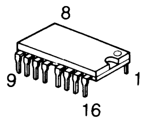
M5201L
μPC1490HA



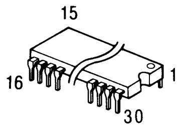
2SA1512
2SB641
2SB643
2SB790
2SB1320
2SB1321
2SC2377
2SC1047
2SD636
2SD638
2SD639
2SD973
2SD1330



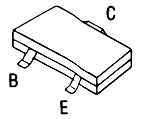
LM339M
μPC339C
MC14011BPC
MN4011B
MN4066B
μPD4066BC
RZ4066BD
μPC4001BC
MN4001B



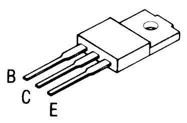
MC14519BCP
MN4052BC



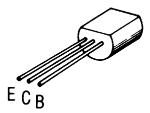
AN3334K
AN3495K
M51366SP



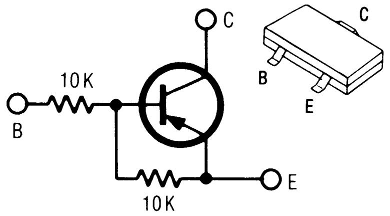
2SB709
2SC2295
2SC2404
2SD1306
2SD1328
2SD601
2SD601A
2SD602



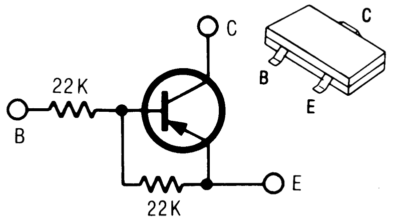
2SC4024LF
2SD1856



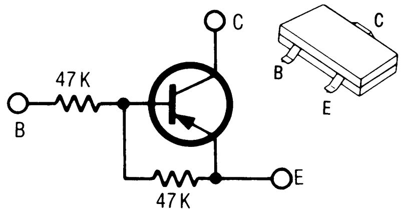
2SC1384
2SD893


10K
B
C
E
10K
C
B
E

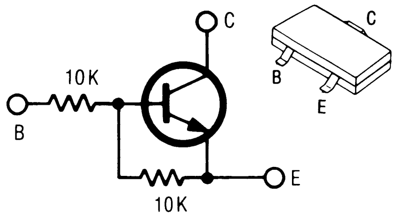
UN2111
DTA114EK
FN1A4M


22K
B
C
E
22K
C
B
E

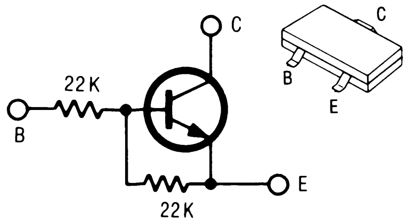
UN2112
DTA124EK


47K
B
C
E
47K
C
B
E

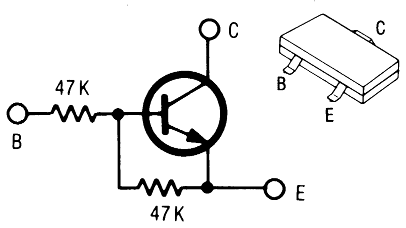
UN2113
DTA144EK
FN1L4M


10K
B
C
E
10K
C
B
E

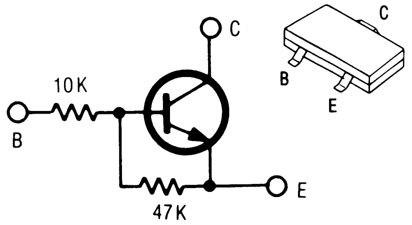
UN2211
DTC114EK
FA1A4M


22K
B
C
E
22K
C
B
E

UN2212
DTC124EK
FA1F4M

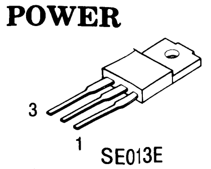

47K
B
C
E
47K
C
B
E

UN2213
DTC144EK
FA1L4M

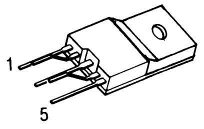

10K
B
C
E
47K
C
B
E

UN2214
DTC114YK
FA1A4P

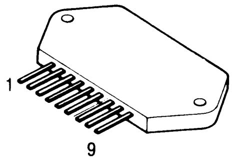
POWER



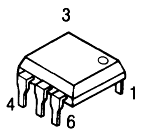
SE013E



STRD6008

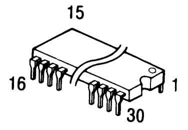


STK5391

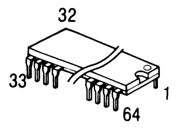


PC11

TIMER



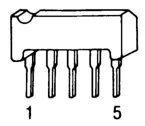
BA6810S



MN187125VHP

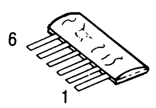
Back Page:
INTERCONNECTION Section

TEST SIGNAL



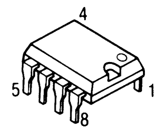
BA7004

VR

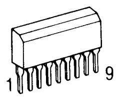


VCR0172

INPUT/OUTPUT

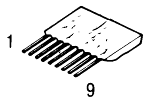


AN6558

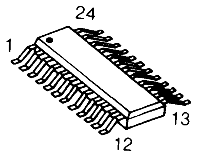


TA7348P

HEAD AMP



VCR0271



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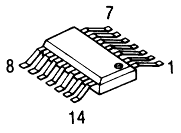
SERVO PACK



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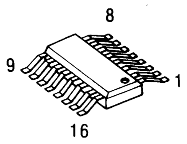

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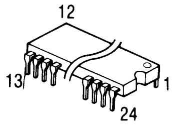

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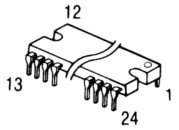

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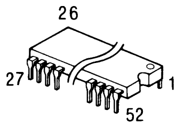

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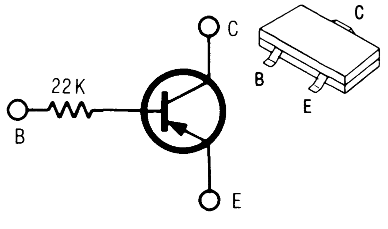

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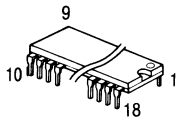
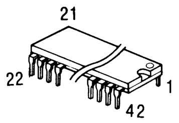
DTA124TK
FN1F4Z

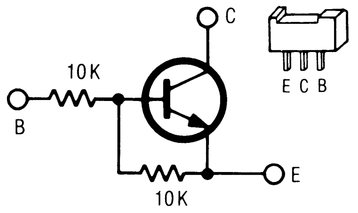
VSP



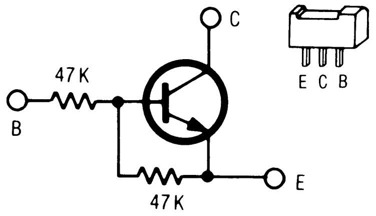
SAA4700



MN158413VHW


10K
B
C
E
10K
E C B

UN1211
DTC114EA


47K
B
C
E
47K
E C B

UN1213
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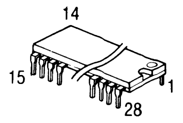
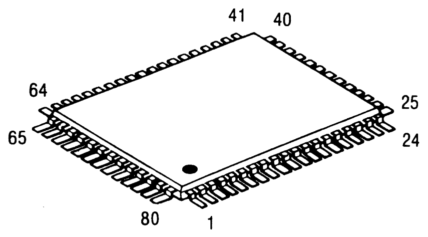
DECODER PACK



TDA3803A

Hi-Fi AUDIO PACK


41
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64
65
25
24
80
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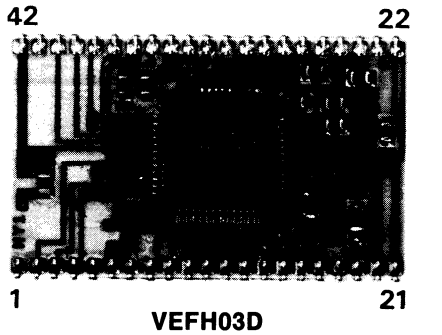
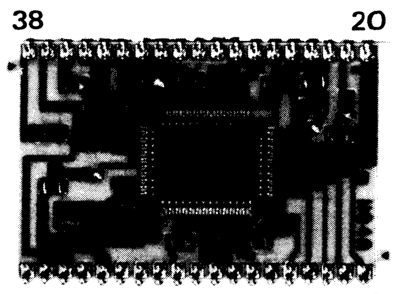
BA7700K1

LUMINANCE & CHROMINANCE PACK

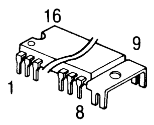


VEFH03D

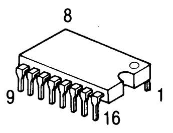


VEFH04F

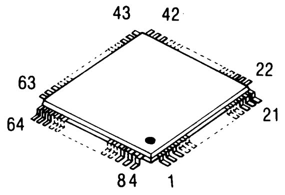
SYSTEM CONTROL Section



AN6609

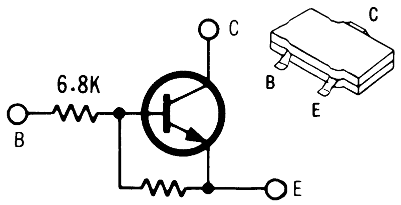


MC14519BCP


43
42
63
22
64
21
84
1

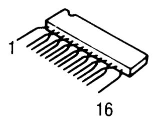
MN188166VHI

LUMINANCE & CHROMINANCE Section


6.8K
B
C
E
6.8K
C
B
E

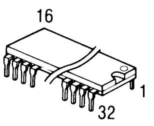
DTC363EK

SERVO Section



BU4066BL

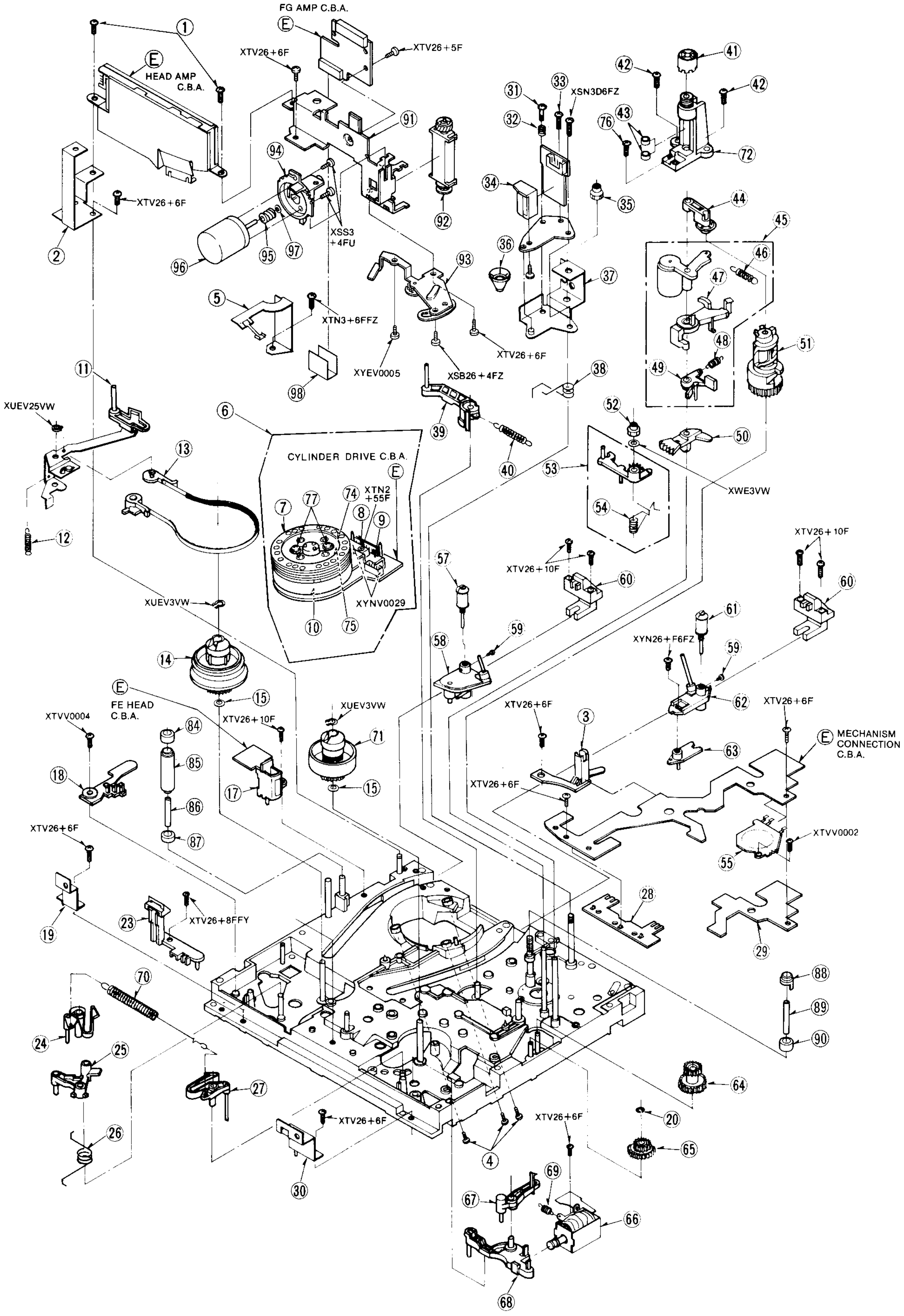
AUDIO Section



BA7766AS

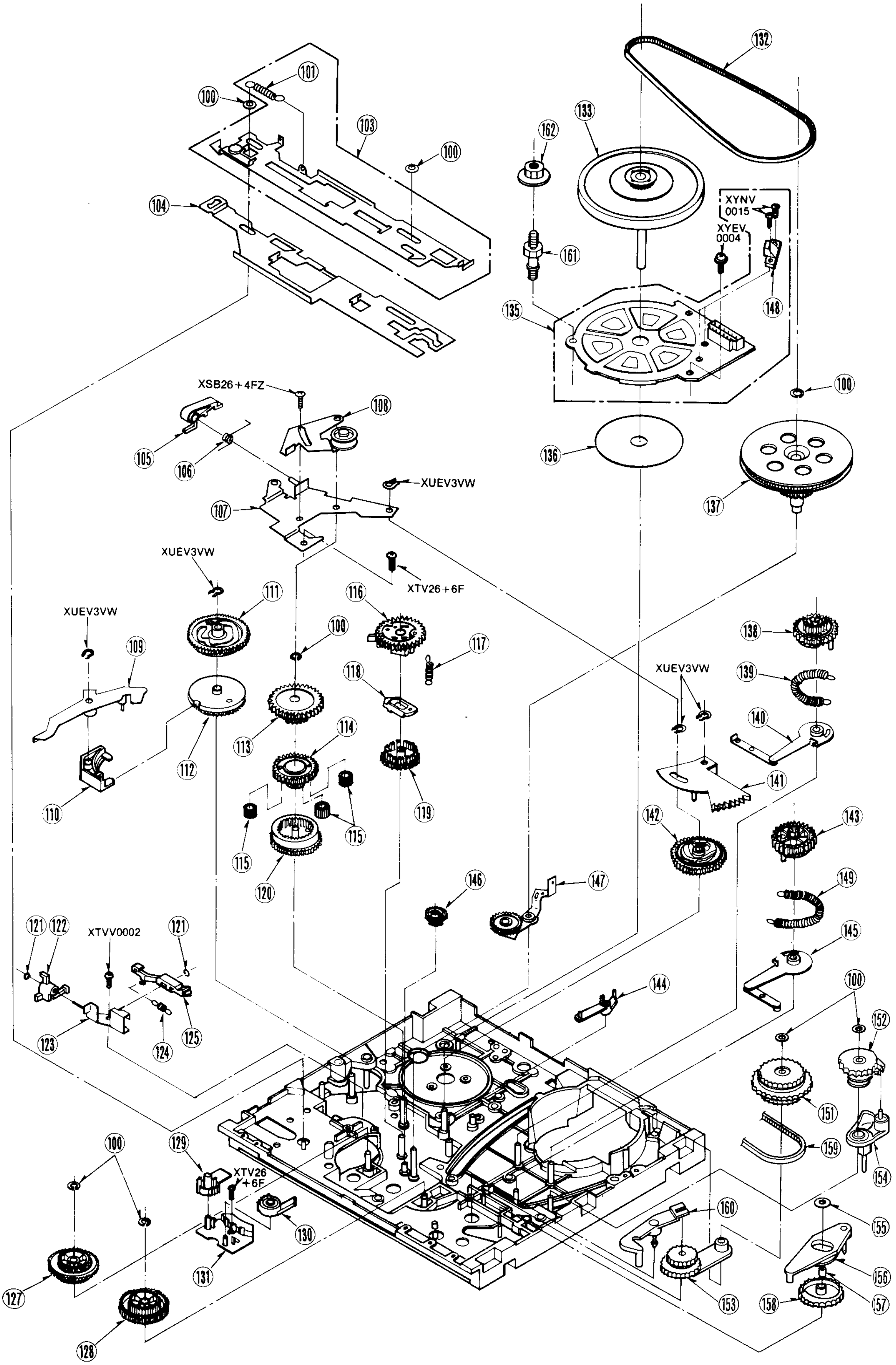
SECTION 4
EXPLODED VIEWS & PARTS LIST

4-1. EXPLODED VIEW ❶ CHASSIS PARTS SECTION (1)



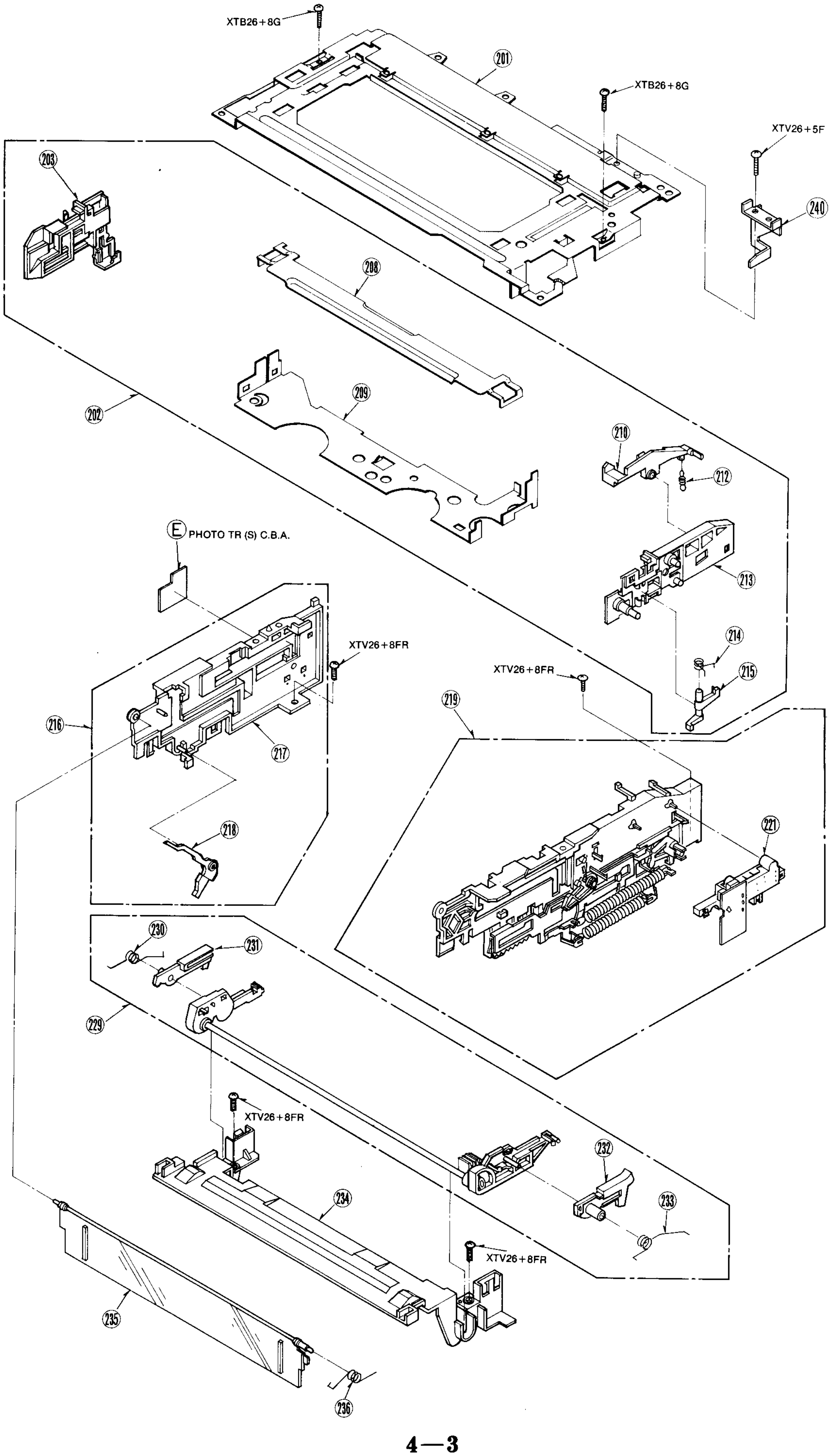
FG AMP C.B.A.
Ⓔ
①
Ⓔ
HEAD AMP C.B.A.
XTV26+6F
XTV26+5F
(41)
(42)
(42)
(31)
(33)
XSN3D6FZ
(43)
(32)
(76)
(72)
(91)
(94)
(92)
(34)
(35)
②
XTV26+6F
XSS3 +4FU
(95)
(97)
(96)
(44)
(45)
(46)
(36)
(37)
(47)
(93)
⑤
XTN3+6FFZ
XYEV0005
XSB26+4FZ
XTV26+6F
(98)
(48)
(49)
(51)
(38)
⑪
XUEV25VW
⑥
(39)
(52)
(50)
⑬
CYLINDER DRIVE C.B.A.
Ⓔ
⑦
(77)
(74)
XTN2 +55F
⑧
⑨
(40)
(53)
XWE3VW
(54)
⑫
XTV26+10F
XTV26+10F
(60)
(60)
(57)
XUEV3VW
⑩
(75)
XYNV0029
(61)
(59)
(58)
XYN26+F6FZ
(59)
⑭
⑮
Ⓔ
FE HEAD C.B.A.
XTVV0004
XTV26+10F
XUEV3VW
(84)
(71)
XTV26+6F
③
XTV26+6F
(62)
Ⓔ
MECHANISM CONNECTION C.B.A.
(63)
⑱
(85)
⑰
⑮
XTV26+6F
(86)
(87)
XTV26+6F
XTVV0002
(55)
⑲
㉓
XTV26+8FFY
(28)
(29)
(70)
(88)
(89)
(24)
(25)
(90)
(27)
(64)
XTV26+6F
(26)
XTV26+6F
⑳
④
(65)
(30)
(69)
(67)
(66)
(68)

❷ CHASSIS PARTS SECTION (2)

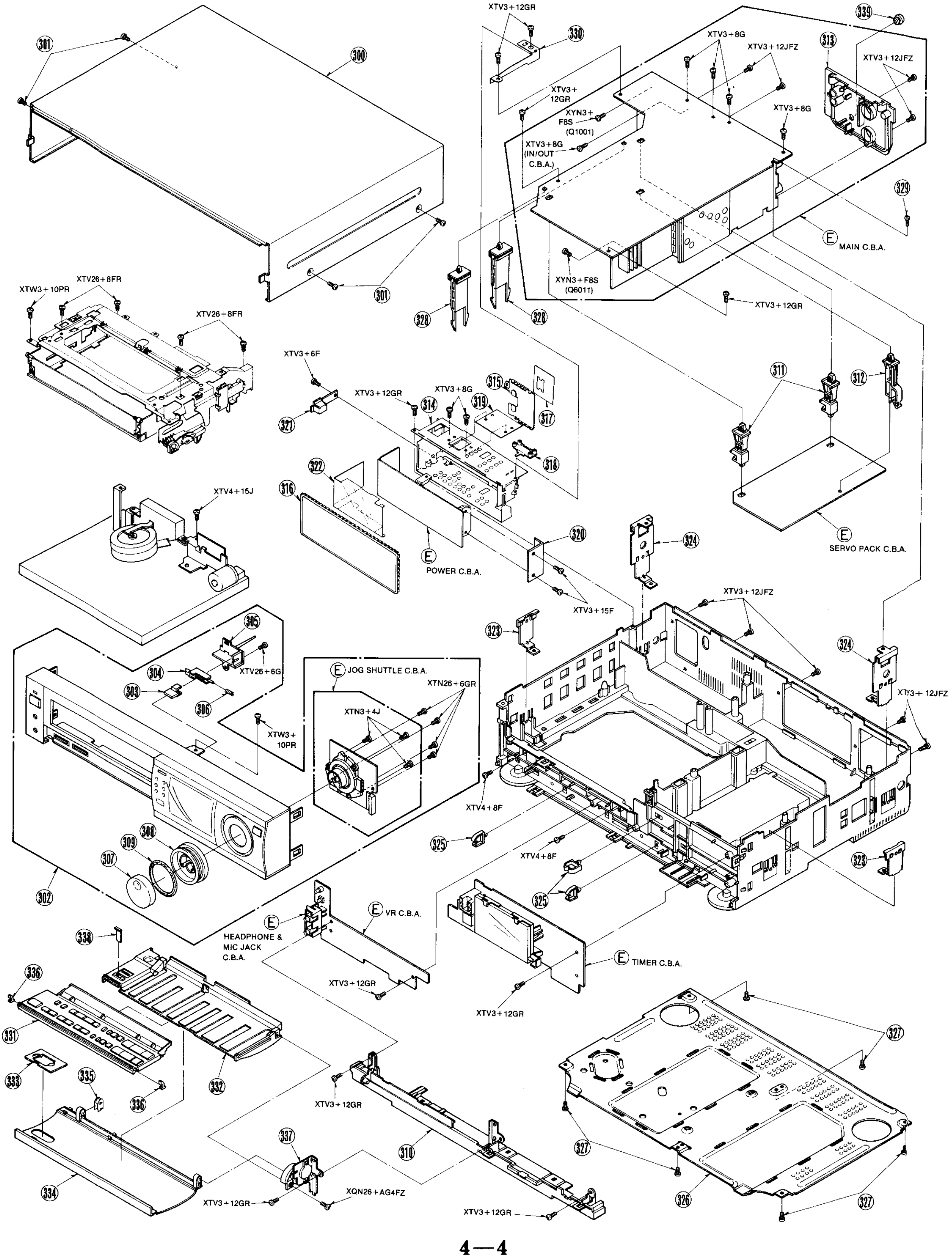


132
101
100
103
100
133
162
XYNV 0015
XYEV 0004
104
161
148
135
100
XSB26+4FZ
108
105
106
136
137
XUEV3VW
107
XUEV3VW
XTV26+6F
111
116
100
117
XUEV3VW
109
138
118
139
XUEV3VW
113
112
114
140
141
110
119
115
115
142
143
120
146
147
149
121
122
XTVV0002
121
145
144
100
152
123
124
125
151
100
129
XTV26 +6F
159
154
130
160
155
127
131
156
153
158
157
128

❸ CASSETTE UP MECHANISM SECTION

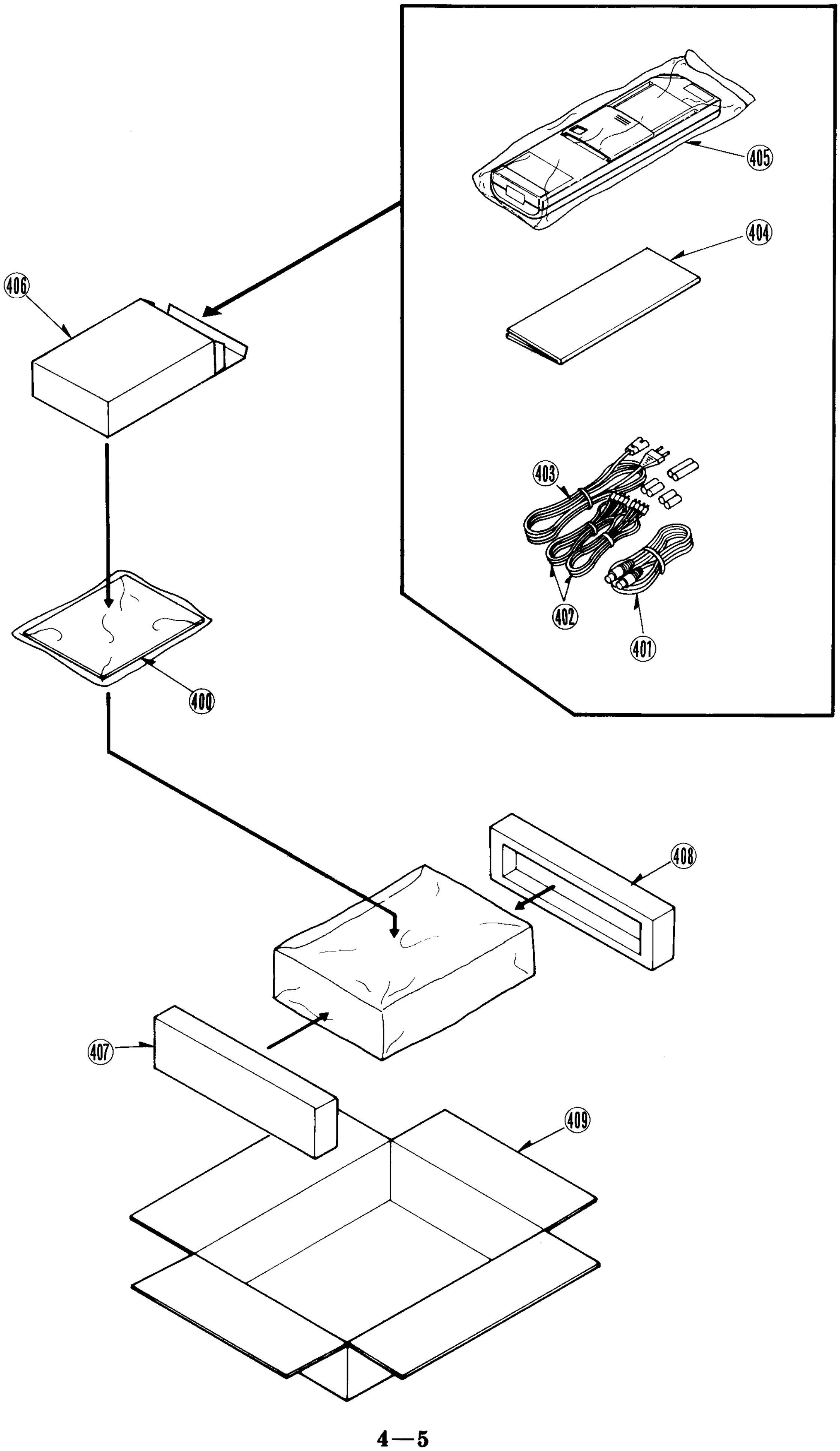

XTB26+8G
201
XTB26+8G
XTV26+5F
240
203
208
209
202
210
212
213
214
215
E PHOTO TR (S) C.B.A.
XTV26+8FR
XTV26+8FR
216
217
219
218
221
230
231
229
XTV26+8FR
232
233
234
XTV26+8FR
235
236

❹ CASING PARTS SECTION

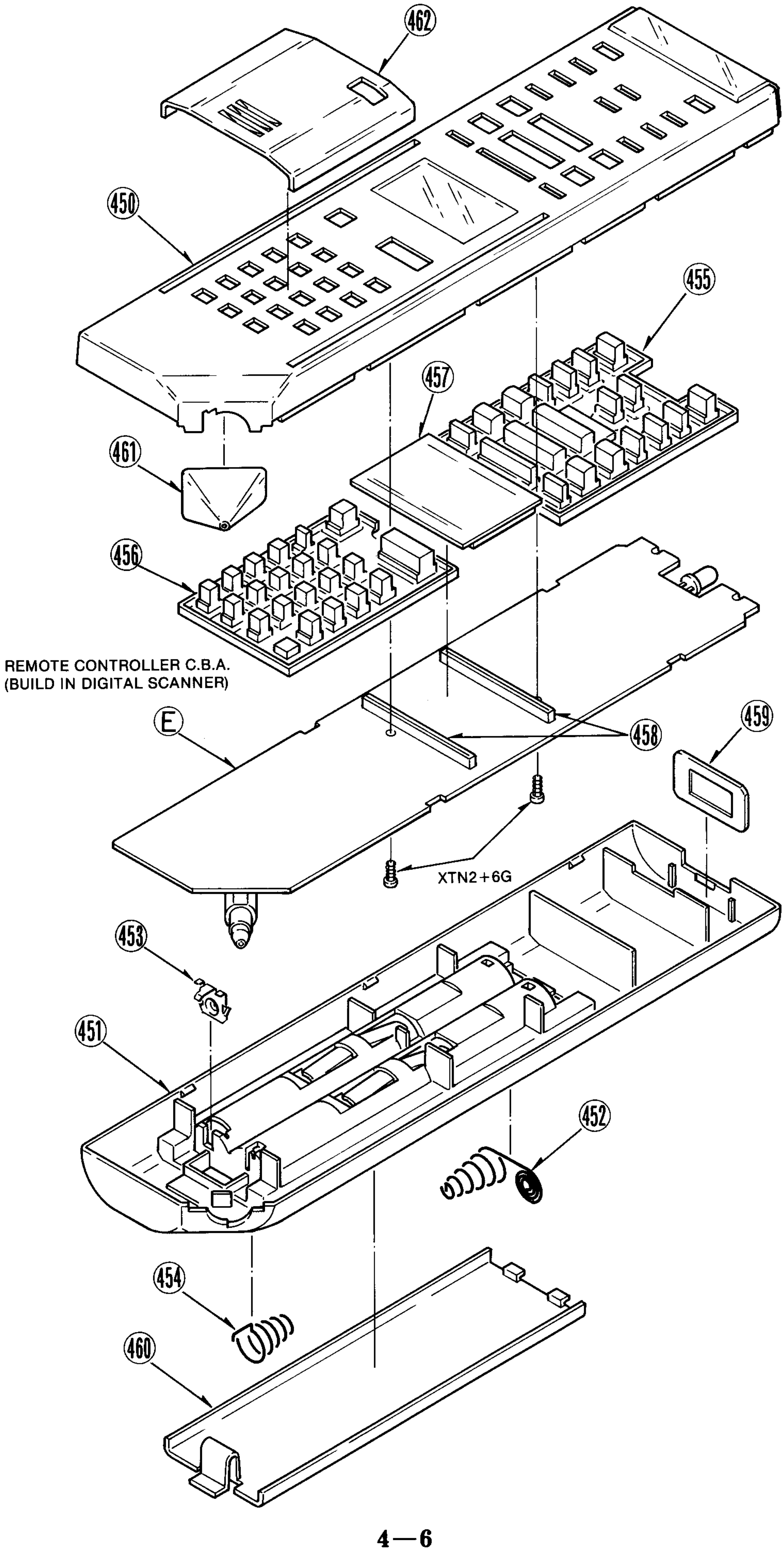


301
300
301
301
XTW3+10PR
XTV26+8FR
XTV26+8FR
XTV3+12GR
330
XTV3+12GR
XYN3+F8S (Q1001)
XTV3+8G (IN/OUT C.B.A.)
XTV3+8G
XTV3+12JFZ
339
313
XTV3+12JFZ
XTV3+8G
329
E MAIN C.B.A.
XYN3+F8S (Q6011)
328
328
XTV3+12GR
XTV3+6F
XTV3+12GR
XTV3+8G
314
315
319
317
321
318
322
316
E POWER C.B.A.
320
XTV3+15F
311
312
E SERVO PACK C.B.A.
XTV4+15J
305
304
XTV26+6G
303
306
XTW3+10PR
E JOG SHUTTLE C.B.A.
XTN26+6GR
XTN3+4J
308
309
307
302
324
XTV3+12JFZ
323
324
XTV3+12JFZ
XTV4+8F
325
XTV4+8F
325
323
E HEADPHONE & MIC JACK C.B.A.
E VR C.B.A.
XTV3+12GR
E TIMER C.B.A.
XTV3+12GR
338
336
331
332
333
335
336
334
XTV3+12GR
337
XTV3+12GR
XQN26+AG4FZ
310
XTV3+12GR
327
327
327
326
327

❺ PACKING PARTS SECTION


405
404
406
403
402
401
400
408
407
409

❻ REMOTE CONTROLLER (BUILD IN DIGITAL SCANNER) UNIT


462
450
455
457
461
456
REMOTE CONTROLLER C.B.A.
(BUILD IN DIGITAL SCANNER)
E
458
459
XTN2+6G
453
451
452
454
460

ORDER NO. VRD8811M169
(Date of issue: NOV., 1988)

PARTS LIST

MODEL NO.: NV-F70EG

1. NV-F70EG Mechanical Replacement Parts List

*This parts list is detachable from the manual.

Note:1.* Be sure to make your orders of replacement parts according to this list.
2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
**********		NV-F70EG			
1(1)		VHD0418	HEAD AMP SET SCREW	2	
2(1)		VMA6897	HEAD AMP MOUNT ANGLE (L)	1	
3(1)		VXA3520	LED HOLDER UNIT	1	
4(1)		VHD0342	CYLINDER SCREW	3	
5(1)		VXA2702	EARTH PLATE UNIT	1	
6(1)		VEG0684	CYLINDER UNIT	1	<!>
7(1)		VEH0433	UPPER CYLINDER UNIT	1	
8(1)		VRH0015	HEATER	1	
9(1)		VMA6884	MAIN HOLDER	1	
10(1)		VSC2188	CYLINDER C.B.A.SHIELD PLATE	1	
11(1)		VXL1855	TENSION ARM (1) UNIT	1	
12(1)		VMB1563	TENSION SPRING	1	
13(1)		VXZ0267	TENSION BAND UNIT	1	
14(1)		VXR0179	SUPPLY REEL TABLE UNIT	1	
15(1)		VMX1171	REEL WASHER (0.5mm)	2	
15(1)		VMX1239	REEL WASHER (0.3mm)	2	
15(1)		VMX1238	REEL WASHER (0.2mm)	2	
17(1)		VBS0038	FE HEAD	1	
18(1)		VMD1316	TENSION SPRING HOOK	1	
19(1)		VMA6895	MOUNT ANGLE (L)	1	
20(1)		VMX1079	CUT WASHER	1	
23(1)		VES0486	SAFETY SW	1	
24(1)		VXZ0259	SUPPLY MAIN BRAKE UNIT	1	
25(1)		VXZ0274	SUPPLY SOFT BRAKE(1)UNIT	1	
26(1)		VMB1564	SUPPLY SOFT BRAKE SPRING	1	
27(1)		VXZ0262	TAKE UP MAIN BRAKE UNIT	1	
28(1)		VMA7829	REINFORCEMENT PLATE (F)	1	
29(1)		VMA7830	REINFORCEMENT PLATE (R)	1	
30(1)		VMA6896	MOUNT ANGLE (R)	1	
31(1)		VHD0322	ADJUST SCREW	1	
32(1)		VMB1251	ADJUST SPRING	1	
33(1)		VHD0089B	AZIMUTH ADJUST SCREW	1	
34(1)		VBR0132	A/C HEAD	1	
35(1)		VHN0063	M4 NYLON NUT	1	
36(1)		VHN0110	ADJUST NUT	1	
37(1)		VMA7831	HEAD BASE	1	
38(1)		VMB1567	A/C HEAD SPRING	1	
39(1)		VXL1910	SUB LOADING ARM (1) UNIT	1	
40(1)		VMB1566	SUB POST SPRING	1	
41(1)		VXQ0006	THRUST SCREW UNIT	1	
42(1)		VHD0317	HOUSING SCREW	2	
43(1)		VMX1033	OIL SEAL	2	
44(1)		VMX1353	PINCH CAM CAP	1	
45(1)		VXL1858	PRESSURE ROLLER UNIT	1	
46(1)		VMB1941	PIN PRESSURE SPRING	1	
47(1)		VML2232	PINCH PRESSURE ARM	1	
48(1)		VMB1569	PINCH PRESSURE ARM RELEASE SPRING	1	
49(1)		VML1874	PINCH LIFT ARM	1	
50(1)		VDG0357	P5 PULL OUT SECTOR GEAR	1	
51(1)		VDG0421	PINCH CAM	1	
52(1)		VHN0023	M3 NYLON NUT	1	
53(1)		VXL1485	P5 UNIT	1	
54(1)		VMB1554	P5 SPRING	1	
55(1)		VSS0175	MODE SW	1	
57(1)		VXP0863	ROLLER POST UNIT	1	
58(1)		VXA2729	INCLIND BASE (S)(1)UNIT	1	
59(1)		VHD0133	ROLLER POST SCREW	2	
60(1)		VMD0910	POST STOPPER	2	
61(1)		VXP0764	ROLLER POST UNIT	1	
62(1)		VXA2686	INCLIND BASE(T)(1)UNIT	1	
63(1)		VXA2687	INCLIND ADJUST PLATE UNIT	1	
64(1)		VDG0483	PINCH SPEED DOWN GEAR	1	
65(1)		VDG0332	CONNECTION GEAR	1	
66(1)		VSJ0073	SOLENOID	1	
67(1)		VXA2692	KICK ROD UNIT	1	
68(1)		VML1849	SOLENOID LEVER	1	
69(1)		VMB1553	KICK ROD SPRING	1	
70(1)		VMB2012	MAIN BRAKE SPRING	1	
71(1)		VXR0176	TAKE UP REEL TABLE UNIT	1	
72(1)		VXD0101	HOUSING UNIT	1	
74(1)		VSC1843	HEAT SINK PLATE	1	
75(1)		VHD0329	HEAT SINK SCREW	1	
76(1)		VHD0374	HOUSING SCREW	1	
77(1)		VHD0425	UPPER CYLINDER SCREW	2	
84(1)		VMX1088	SUPPLY UPPER LIMITER	1	
85(1)		VDP1072	SUPPLY ROLLER	1	
86(1)		VMX0876	P1 COLLAR	1	
87(1)		VMX1533	SUPPLY ROLLER LIMITER	1	
88(1)		VMX1544	P4 UPPER LIMITER	1	
89(1)		VMX1568	P4 SLEEVE	1	
90(1)		VMX1534	P4 LOWER LIMITER	1	
91(1)		VMA7832	MOTOR MOUNT PLATE	1	
92(1)		VXA3517	WORM WHEEL BEARING UNIT	1	
93(1)		VXA3701	TENSION PULLEY BASE (A) UNIT	1	
94(1)		VXA3564	REEL MOTOR BRACKET UNIT	1	
95(1)		VXP1047	WORM GEAR UNIT	1	
96(1)		VEM0320	REV MOTOR	1	
97(1)		VMX1535	WORM WASHER	1	
98(1)		VWJ15TW060M	FLEXIBLE CADE	1	
100(2)		VMX1079	CUT WASHER	8	
101(2)		VMB1883	SUB LEVER SPRING	1	
103(2)		VXA3510	SUB LEVER UNIT	1	
104(2)		VMM0204	MAIN LEVER	1	
105(2)		VXL1873	SS BRAKE ARM UNIT	1	
106(2)		VMB1588	SS BRAKE SPRING	1	
107(2)		VXA3512	SS BRAKE BASE (1) UNIT	1	
108(2)		VXA3516	TENSION ROLLER UNIT	1	
109(2)		VXL1632	CAM FOLLOWER ARM UNIT	1	
110(2)		VML1861	DETENT ARM	1	
111(2)		VDG0574	MAIN CAM GEAR	1	
112(2)		VDG0343	SUB CAM GEAR	1	
113(2)		VDG0348	CENTRE GEAR	1	
114(2)		VDG0422	RETAINER GEAR	1	
115(2)		VDG0345	PLANET GEAR	3	
116(2)		VDG0547	CLUTCH DISK	1	
117(2)		VMB1558	CLUTCH SPRING	1	
118(2)		VDG0350	LOCK SLIDE GEAR	1	
119(2)		VDG0335	DRIVE DISK	1	
120(2)		VDG0342	RING GEAR	1	
121(2)		VMX0967	CUT WASHER	2	
122(2)		VML1859	CHANGE LEVER	1	
123(2)		VXA2672	RELEASE LEVER (1) UNIT	1	
124(2)		VMB1557	RELEASE SPRING	1	
125(2)		VML1860	RELEASE LEVER	1	
127(2)		VXP1031	TAKE UP REEL GEAR UNIT	1	
128(2)		VXP0981	SUPPLY REEL GEAR UNIT	1	
129(2)		VML1858	RETURN LEVER (R)	1	
130(2)		VML1857	RETURN LEVER (L)	1	
131(2)		VMD0913	STOPPER BASE	1	
132(2)		VDV0169	TIMING BELT	1	
133(2)		VXP0777	ROTOR UNIT	1	
135(2)		VEK04097	STATOR UNIT	1	<!>
136(2)		VMA6847	SUB PLATE	1	
137(2)		VXP1050	CENTRE PULLEY UNIT	1	
138(2)		VDG0564	LOADING GEAR (T)	1	
139(2)		VMB1555	LOADING SPRING (T)	1	
140(2)		VXL1489	LOADING ARM (T)(1) UNIT	1	
141(2)		VXA3515	SECTOR GEAR UNIT	1	
142(2)		VDG0516	LOADING CAM GEAR	1	
143(2)		VDG0419	LOADING GEAR (S)	1	
144(2)		VML2266	PLAY CONTROL ARM	1	
145(2)		VXL1487	LOADING ARM (S)(1) UNIT	1	
146(2)		VDG0546	INTERMEDIATE GEAR	1	
147(2)		VXL1861	PLAY ARM UNIT	1	
148(2)		VBK0048	FG HEAD	1	
149(2)		VMB1746	LOADING SPRING(S)	1	
151(2)		VXP1029	REVIEW CLUTCH UNIT	1	
152(2)		VXP1030	TENSION RELEASE CLUTCH UNIT	1	
153(2)		VXL1851	REVIEW ARM UNIT	1	
154(2)		VML2197	TENSION RELEASE LEVER	1	
155(2)		VMX1536	CUT WASHER	1	
156(2)		VML2233	SUB CAM FOLLOWER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
157(2)		VMX1495	RUBBER STOPPER	1	
158(2)		VDG0517	SUB LEVER CAM	1	
159(2)		VDV0199	REVIEW CLUTCH TIMING BELT	1	
160(2)		VML2200	REVIEW CONTROL LEVER	1	
161(2)		VHD0431	STATOR SPACER SCREW	1	
162(2)		VHN0102	STATOR NUT	1	
201(3)		VMA7223	TOP PLATE	1	
202(3)		VXA3707	CASSETTE HOLDER UNIT	1	
203(3)		VXA3499	HOLDER GUIDE (L) UNIT	1	
208(3)		VXA3494	HOLDER ANGLE UNIT	1	
209(3)		VMA7995	CASSETTE HOLDER	1	
210(3)		VML1882	OPENER LEVER	1	
212(3)		VMB1584	OPENER LEVER SPRING	1	
213(3)		VMD1352	HOLDER GUIDE (R)	1	
214(3)		VMB1576	RELEASE SPRING	1	
215(3)		VML1881	RELEASE LEVER	1	
216(3)		VXA2676	SIDE PLATE (L) UNIT	1	
217(3)		VMD0917	SIDE PLATE (L)	1	
218(3)		VML1880	OPENER LEVER	1	
219(3)		VXA3495	SIDE PLATE (R) UNIT	1	
221(3)		VXA3498	SLIDE SW UNIT	1	
229(3)		VXP0987	MAIN SHAFT UNIT	1	
230(3)		VMB1836	SUB WIPER SPRING (L)	1	
231(3)		VML1878	SUB WIPER ARM	1	
232(3)		VML1879	SUB WIPER ARM (R)	1	
233(3)		VMB1837	SUB WIPER SPRING (R)	1	
234(3)		VMA6900	CASSETTE GUIDE	1	
235(3)		VKF1212	BLINDER PANEL	1	
236(3)		VMB1258	BLINDER SPRING	1	
240(3)		VMA7224	CASSETTE HOLDER ANGLE	1	
300(4)		VYP2676	TOP PANEL UNIT	1	
301(4)		VHD0165	TOP PANEL SCREW	4	
302(4)		VYP2552	FRONT PANEL UNIT	1	
303(4)		VGU4497	DOOR OPEN BUTTON	1	
304(4)		VGU4498	DOOR LOCK LEVER	1	
305(4)		VGQ1675	LOCK LEVER HOLDER	1	
306(4)		VMB1963	LOCK LEVER SPRING	1	
307(4)		VXU0880	JOG KNOB UNIT	1	
308(4)		VGU4505	SHUTTLE KNOB	1	
309(4)		VGQ1655	SHUTTLE LING	1	
310(4)		VYF1332	SUPPORT PANEL UNIT	1	
311(4)		VKC0329	SERVO HINGE CLIP	2	
312(4)		VJF0553	SERVO SUPPORT ANGLE	1	
313(4)		VJH0510	RF & ANT BOARD	1	
314(4)		VXA3571	POWER SHIELD PLATE (MAIN)	1	
315(4)		VSC2397	POWER SHIELD PLATE (TOP)	1	
316(4)		VSC2237	POWER SHIELD PLATE (BOTTOM)	1	
317(4)		VGH1476	POWER NAME PLATE	1	
318(4)		VGQ1377	TR. HOLDER	1	
319(4)		VMZ1224	INSULATION SHEET	1	
320(4)		VSC2238	HEAT SINK	1	
321(4)		VMP1734	SCREW STOPER ANGLE	1	
322(4)		VMZ1140	BARRIER	1	
323(4)		VMP0442	TOP HOLDER ANGLE (F)	2	
324(4)		VMP1855	TOP HOLDER ANGLE (R)	2	
325(4)		VJF0442	WIRE SADDLE	3	
326(4)		VKU0302	BOTTOM PLATE	1	
327(4)		VHD0059	BOTTOM PLATE SCREW	6	
328(4)		VKC0354	MAIN HING CLIP	2	
329(4)		VHD0418	MAIN SCREW	1	
330(4)		VMC0445	EARTH PLATE	1	
331(4)		VES0491	KEY BOARD PANEL UNIT	1	
332(4)		VYP2587	DOOR PANEL UNIT	1	
333(4)		VGP2211	DOOR SUB PANEL	1	
334(4)		VYC0305	DOOR ALUMINUM UNIT	1	
335(4)		VMC0443	EARTH SPRING	1	
336(4)		VMT0260	CUSHION RUBBER	2	
337(4)		VXU0878	DOOR GEAR UNIT	1	
338(4)		VGL0379	PANEL LIGHT	1	
339(4)		VMG0326	RUBBER CAP	1	
400(5)		VQT2959	OPERATING INSTRUCTIONS	1	<!>
			(ENGLISH/ITALIAN)		
400(5)		VQT2962	OPERATING INSTRUCTIONS	1	<!>
			(GERMAN/GREEK)		
401(5)		VJA0376	DIN RF CABLE	1	
402(5)		VJA0231	AUDIO CABLE	2	
403(5)		VJA0443	AC CORD	1	<!>
404(5)		VQC1315	PROGRAMME SHEET	1	
405(5)		VEQ0910	REMOTE CONTROLLER UNIT	1	BUILD IN DIGITAL
					SCANNER
406(5)		VPK0834	ACCESSORIES PACKING	1	
407(5)		VPN2348	CUSHION (L)	1	
408(5)		VPN2349	CUSHION (R)	1	
409(5)		VPG4544	PACKING	1	
450(6)		VYK2409	TOP COVER UNIT	1	
451(6)		VKM1673	BOTTOM COVER	1	
452(6)		VJR0497	ELECTRODE (COMMON)	1	
453(6)		VJR0507	ELECTRODE (+)	1	
454(6)		VJR0412	ELECTRODE (-)	1	
455(6)		VSP0389	RUBBER CONTACT (A)	1	
456(6)		VSP0390	RUBBER CONTACT (B)	1	
457(6)		VSL0156	LCD	1	
458(6)		VMT0257	CONDUCTIVE RUBBER	2	
459(6)		VKW0878	IR WINDOW	1	
460(6)		VKF1202	BATTERY COVER	1	
461(6)		VGQ1640	SENSOR CAP	1	
462(6)		VKF1201	SLIDE DOOR	1	

2. NV-F70EG Electrical Replacement Parts List

Note:1.* Be sure to make your orders of replacement parts according to this list.

2.IMPORTANT SAFETY NOTICE
Components identified with the mark <!> have the special characteristics for safety. When replacing any of these components,use only the same type.

3.Unless otherwise specified,
All resistors are in OHMS ,K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf),P=uuF.

4.The P.C.Board units marked width'■'show below the main assembled parts.

5.Printed circuit board assembly with mark(NLA) is no longer available after discontinuation of the product.

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
*********		NV-70EG			
		VEP03599B	MAIN C.B.A.	1	(NLA)<!>
					INCLUDING THE
					LUMINANCE/CHROMINANCE
					PACK C.B.A(VEP03627A)
					,SECAM PACK C.B.A
					(VEP03452B),HI-FI
					AUDIO PACK C.B.A
					(VEP04242C),INPUT/
					OUTPUT PACK C.B.A.
					(VEP04253A),TEST
					SIGNAL PACK C.B.A.
					(VEP03610A),TV DEMODU
					PACK C.B.A(VEP07536A)
					,DECODER PACK C.B.A.
					(VEP07537A),VPS PACK
					C.B.A.(VEP07538A),
					SUB SYSTEM CONTROL
					C.B.A. (VEP06584A)
					AND SUB SERVO(3) PACK
					C.B.A.(VEP02346A)
		VEP03627A	LUMINANCE/CHROMINANCE PACK	1	(NLA)
			C.B.A		INCLUDING THE SECAM
					PACK C.B.A(VEP03452B)
					.(PART LIST IS
					MENTIONED IN MAIN
					C.B.A.)
		VEP03452B	SECAM PACK C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)
		VEP04242C	HI-FI AUDIO PACK C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)
		VEP04253A	INPUT/OUTPUT PACK C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)
		VEP03610A	TEST SIGNAL PACK C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)
		VEP07536A	TV DEMODU PACK C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)
		VEP07537A	DECODER PACK C.B.A	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)
		VEP07538A	VPS PACK C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VEP06584A	SUB SYSTEM CONTROL C.B.A	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)
		VEP02346A	SUB SERVO (3) C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN MAIN C.B.A.)
		VEP02325B	SERVO PACK C.B.A.	1	(NLA)
					INCLUDING THE
					SUB SERVO PACK C.B.A
					(VEP02334A)
		VEP02334A	SUB SERVO PACK C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN SERVO PACK
					C.B.A.)
		VEP01353A	POWER C.B.A.	1	(NLA)<!>
		VEP05134B	HEAD AMP C.B.A.	1	(NLA)
		VEP06533B	VR C.B.A.	1	(NLA)
					INCLUDING THE HEAD
					PHONE & MIC JACK
					C.B.A(VEP00M29B)
		VEP00M29B	HEAD PHONN & MIC JACK	1	(NLA)
			C.B.A.		(PART LIST IS MENTI-
					ONED IN VR C.B.A.)
		VEP06537A	JOG/SHUTTLE C.B.A.	1	(NLA)
		VEP07527B	TIMER C.B.A.	1	(NLA)
					INCLUDING THE
					IR RECEIVER C.B.A
					(VEP06552A)
		VEP06552A	IR RECEIVER C.B.A.	1	(NLA)
					(PART LIST IS MENTI-
					ONED IN TIMER C.B.A.)
		VEP00K88C	FE HEAD C.B.A	1	(NLA)
		VEP00M86A	FG AMP C.B.A	1	(NLA)
		VEP00N05A	CYLINDER DRIVE C.B.A.	1	(NLA)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
		VXA3553	MECHANISM CONNECTION C.B.A.	1	(NLA)
		VEK3578	PHOTO TR (S) C.B.A.	1	(NLA)
		VEP66079B	REMOTE CONTROLLER C.B.A.	1	(NLA)
F1101		XBA2C16TB0	FUSE 250V 1.6A	1	<!>
F1102		XBA2C12TB0	FUSE 250V 1.2A	1	<!>
		VWJ0357	FLEXIBLE CABLE(15P)	1	
		VWJ0358	FLEXIBLE CABLE(18P)	1	
	■	VEP03599B	MAIN C.B.A.		(NLA)<!>
			CAPACITORS		
C251		ECEA1EKN3R3	E.CAPACITOR 25V 3.3U	1	
C252		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C253		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C301		ECEA1EKN2R2	E.CAPACITOR 25V 2.2U	1	
C302		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C303		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C304		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C305		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C306		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C307		ECUM1H470JCN	CHIP 50V 47P	1	
C308		ECUM1H220JCN	CHIP 50V 22P	1	
C309		ECUX1H473ZFN	CHIP 50V 0.047U	1	
C310		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C311,12		ECUM1H180JCN	CHIP 50V 18P	2	
C313		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C314		ECUM1H560JCN	CHIP 50V 56P	1	
C315		ECUM1H390JCN	C.CAPACITOR CH 50V 39P	1	
C316		ECUM1H820JCN	CHIP 50V 82P	1	
C317		ECEA1AK470U	E.CAPACITOR 10V 47U	1	
C318		ECUM1H220JCN	CHIP 50V 22P	1	
C319		ECUM1H471KBN	CHIP 50V 470P	1	
C320		ECUM1H270JCN	CHIP 50V 27P	1	
C321		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C322		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C323,24		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C325,26		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C327,28		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C329		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C331		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C332		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C333		ECEA1HK4R7	E.CAPACITOR 50V 4.7U	1	
C334		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C335		ECUM1H680JCN	CHIP 50V 68P	1	
C336		ECUM1H101JCN	CHIP 50V 100P	1	
C337		ECUM1H270JCN	CHIP 50V 27P	1	
C338		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C339		ECUM1H220JCN	CHIP 50V 22P	1	
C340		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C341		ECUM1H223KBN	C.CAPACITOR 50V 0.022U	1	
C342		ECUM1H101JCN	CHIP 50V 100P	1	
C343		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C345		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C349		ECUM1H470JCN	CHIP 50V 47P	1	
C351		ECCF1H220JC	C.CAPACITOR 50V 22P	1	
C352		ECQB1H562JH	P.CAPACITOR 50V 5600P	1	
C360		ECQV1H153JZ	P.CAPACITOR 50V 0.015U	1	
C601		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C701		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C702		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C703		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C707		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C708		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C710		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C715-20		ECUM1H103ZFN	CHIP 50V 0.01U	6	
C721		ECEA1HKR27K	E.CAPACITOR 50V 0.27U	1	
C722		ECUM1H1032FN	CHIP 50V 0.01U	1	
C723		ECUM1H180JCN	CHIP 50V 18P	1	
C725		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C727		ECUM1H080DCN	CHIP 50V 80P	1	
C728		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C730		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C731		ECEA1CKS100	E.CAPACITOR 16V 10U	1	
C734		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C739		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C740		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C741		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C742		ECUN1H030CCN	CHIP 50V 3P	1	
C743		ECUM1H270RSN	CHIP 50V 27P	1	
C744		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C745		ECUX1H680JPN	CHIP 50V 68P	1	
C746		ECUM1H150JCN	CHIP 50V 15P	1	
C748		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C775		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C781		ECUM1H220JCN	CHIP 50V 22P	1	
C782		ECUM1H060DCN	CHIP 50V 6P	1	
C790		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C801,02		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C803		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C804,05		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C806		ECUM1H471KBN	CHIP 50V 470P	1	
C807,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C810		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C811		ECUM1H180JCN	CHIP 50V 18P	1	
C812		ECUM1H1032FN	CHIP 50V 0.01U	1	
C813		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C814		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C815		ECQV1H154JZ	P.CAPACITOR 50V 0.15U	1	
C816		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C817		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	1	
C818		ECUM1H471KBN	CHIP 50V 470P	1	
C819		ECUM1H820JCN	CHIP 50V 82P	1	
C820		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C821		ECEA1HFS4R7	E.CAPACITOR 50V 4.7U	1	
C823		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C824		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C825		ECUM1H101JCN	CHIP 50V 100P	1	
C826		ECEA1AU221	E.CAPACITOR 10V 220U	1	
C827		ECUM1H050DCN	CHIP 50V 5P	1	
C828		ECUM1H102KBN	CHIP 50V 1000P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C829		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C830		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C831,32		ECUM1E104ZFN	CHIP 25V 0.1U	2	
C851		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C852		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C853		ECEA10Z47	E.CAPACITOR 10V 47U	1	
C854		ECQV1H563JZ	P.CAPACITOR 50V 0.056U	1	
C855		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C856		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C858		ECKF1H681KB	C.CAPACITOR 50V 680P	1	
C1001		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C1002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C1003		EECS5R5V473	E.CAPACITOR 5.5V 0.047	1	
C1004		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C1005		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C1006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C1007,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C1009		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C1010		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C1011		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C1012		ECEA1HU470	E.CAPACITOR 50V 47U	1	
C2001		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3001		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3002		ECEA0JU471	E.CAPACITOR 6.3V 470U	1	
C3004		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3005		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C3006		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3007		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3008		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3009		ECUM1H560JCN	CHIP 50V 56P	1	
C3010		ECUM1H151JCN	CHIP 50V 150P	1	
C3012		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C3013		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	1	
C3014		ECUM1H220JCN	CHIP 50V 22P	1	
C3016		ECUM1H220JCN	CHIP 50V 22P	1	
C3017		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3018		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C3019		ECEA1HKN010	E.CAPACITOR 50V 1U	1	
C3020		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3021		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C3022		ECUM1H220JCN	CHIP 50V 22P	1	
C3023		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3024		ECUM1H680JCN	CHIP 50V 68P	1	
C3025		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3026		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C3028		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3029		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3030		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C3031		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3032		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C3033		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3034		ECUM1C224ZFN	CHIP 16V 0.22U	1	
C3040		ECUM1H180JCN	CHIP 50V 18P	1	
C3047		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C3048		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3049		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C3050		ECUM1H180JCN	CHIP 50V 18P	1	
C3051		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C3054		ECUM1H080DCN	C.CAPACITOR CH 50V 8P	1	
C3635-37		ECEA1CK100	E.CAPACITOR 16V 10U	3	
C3638,39		ECUM1H332KBN	CHIP 50V 3300P	2	
C3901-03		ECEA1CK220	E.CAPACITOR 16V 22U	3	
C3904		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C3905		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C3906		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C3908		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C4001		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C4002		ECEA16M33	E.CAPACITOR 16V 33U	1	
C4003		ECUM1H102KBN	CHIP 50V 1000P	1	
C4004		ECQP1222JZ	P.CAPACITOR 0.0022U	1	
C4005		ECCD2H121J	C.CAPACITOR 500V 120P	1	
C4006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4007		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C4008		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4009		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4011		ECQB1H273JH	P.CAPACITOR 50V 0.027U	1	
C4012		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4013		ECUM1H681KBN	C.CAPACITOR CH 50V 680P	1	
C4014		ECUM1H182KBN	CHIP 50V 1800P	1	
C4015		ECEA16M10R	ELECTROLYTIC 16V 10U	1	
C4017		ECEA10M47	E.CAPACITOR 10V 47U	1	
C4018		ECQB1H822JH	P.CAPACITOR 50V 8200P	1	
C4019		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C4020		ECUM1H102KBN	CHIP 50V 1000P	1	
C4021		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C4022		ECUM1H152KBN	C.CAPACITOR CH 50V 1500P	1	
C4023		ECUM1H221JN	C.CAPACITOR CH 50V 220P	1	
C4024,25		ECUM1H101JCN	CHIP 50V 100P	2	
C4026		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C4027		ECUM1H102JN	CHIP 50V 1000P	1	
C4029		ECQB1H123JH	P.CAPACITOR 50V 0.012U	1	
C4101		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4103		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4104		ECEA1APK101	E.CAPACITOR 10V 100U	1	
C4106		ECEA1APK470	E.CAPACITOR 10V 47U	1	
C4107		ECEA1HPK010	E.CAPACITOR 50V 1U	1	
C4108		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C4110,11		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C4112		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C4114,15		ECUX1H473ZFN	CHIP 50V 0.047U	2	
C4118		ECUM1H104ZFN	CHIP 50V 0.1U	1	
C4119		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4120		ECUM1H103KBN	CHIP 50V 0.01U	1	
C4121		ECUM1H223ZFN	CHIP 50V 0.022U	1	
C4122		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4123		ECUM1H221KBN	C.CAPACITOR CH 50V 220P	1	
C4124		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4125		ECUM1H102KBN	CHIP 50V 1000P	1	
C4127-30		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C4501		ECEA1HBZ4R7	E.CAPACITOR 50V 4.7U	1	
C4502		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4503		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4504		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4505		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	
C4506		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4507		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4508		VCEA1EAE4R7J	E.CAPACITOR 25V 4.7U	1	
C4509		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4510		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4511		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4512		ECUM1H102JCN	CHIP 50V 1000P	1	
C4513,14		ECUM1H102JN	CHIP 50V 1000P	2	
C4515		ECEA1HBZ3R3	E.CAPACITOR 50V 3.3U	1	
C4516		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4517		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4518,19		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C4520		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4522		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4525		ECEA1CPZ220	E.CAPACITOR 16V 22U	1	
C4526		VCEA1CAH101	E.CAPACITOR 16V 100U	1	
C4527		VCEA1AAE101	E.CAPACITOR 10V 100U	1	
C4528		ECEA1HK0R1	E.CAPACITOR 50V 0.1U	1	
C4529		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4530		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C4531		ECEA1EK3R3	E.CAPACITOR 25V 3.3U	1	
C4532		ECEA1CPZ471	E.CAPACITOR 16V 470U	1	
C4533		ECEA1CPZ221	E.CAPACITOR 16V 220U	1	
C4534		VCEA1AAH101	E.CAPACITOR 10V 100U	1	
C4535		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4536		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C4537		ECUM1H331JCN	CHIP 50V 330P	1	
C4538		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4539		ECQB1H223JZ	P.CAPACITOR 50V 0.022U	1	
C4540-42		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C4551		ECEA1HBZ4R7	E.CAPACITOR 50V 4.7U	1	
C4552		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C4553		ECQB1H102JA	P.CAPACITOR 50V 1000P	1	
C4554		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4555		ECQB1H682JA	P.CAPACITOR 50V 6800P	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C4556		VCEA1EAE100	E.CAPACITOR 25V 10U	1	
C4557		ECQB1H223JA	P.CAPACITOR 50V 0.022U	1	
C4558		VCEA1EAE4R7J	E.CAPACITOR 25V 4.7U	1	
C4559		VCEA1CAH470	E.CAPACITOR 16V 47U	1	
C4560		ECQB1H103JA	P.CAPACITOR 50V 0.01U	1	
C4561		ECQB1H332JA	P.CAPACITOR 50V 3300P	1	
C4562		ECUM1H102JCN	CHIP 50V 1000P	1	
C4563,64		ECUM1H102JN	CHIP 50V 1000P	2	
C4565		ECEA1HB23R3	E.CAPACITOR 50V 3.3U	1	
C4566		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4567		ECEA1APZ101	E.CAPACITOR 10V 100U	1	
C4568,69		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C4570		ECEA1HPZ4R7	E.CAPACITOR 50V 4.7U	1	
C4572		ECEA1HPZ3R3	E.CAPACITOR 50V 3.3U	1	
C4574,75		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C4901,02		ECUM1H101KBN	C.CAPACITOR CH 50V 100P	2	
C4905,06		ECQB1H103JH	P.CAPACITOR 50V 0.01U	2	
C4907,08		ECQB1H332JH	P.CAPACITOR 50V 3300P	2	
C4909,10		ECUM1H101KN	CHIP 50V 100P	2	
C4911,12		ECQB1H183JH	P.CAPACITOR 50V 0.018U	2	
C4913,14		ECQB1H682JH	P.CAPACITOR 50V 6800P	2	
C4915		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C4916		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C4917,18		VCEA1AAC101	E.CAPACITOR 10V 100U	2	
C4919		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	1	
C4920		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C4921		ECEA1CK330	E.CAPACITOR 16V 33U	1	
C4922		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C4923		ECQB1H222JH	P.CAPACITOR 50V 2200P	1	
C4924,25		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	2	
C4926		ECEA1HKR47	E.CAPACITOR 50V 0.47U	1	
C4927		ECEA1CPZ101	E.CAPACITOR 16V 100U	1	
C4928		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C4929		VCEA1AAC101	E.CAPACITOR 10V 100U	1	
C6001		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6002		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C6003		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C6004		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C6005		ECUM1H151KBN	C.CAPACITOR 50V 150P	1	
C6006		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C6007		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6008		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C6010,11		ECUM1H102KBN	CHIP 50V 1000P	2	
C6012		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C6013,14		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C6015		ECUM1H102ZFN	C.CAPACITOR 50V 1000P	1	
C6016		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C6017		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C6018,19		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C6024-28		ECUM1H221KBN	C.CAPACITOR CH 50V 220P	5	
C6029		ECEA0JU331	E.CAPACITOR 6.3V 330U	1	
C6030		ECEA1CU222	E.CAPACITOR 16V 2200U	1	
C6033		ECEA1CK330U	E.CAPACITOR 16V 33U	1	
C6034		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
C6037,38		ECUM1H330JCN	C.CAPACITOR CH 50V 33P	2	
C6039		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C6041		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C6042		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7302		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7303		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	1	
C7304		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7305		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C7306		ECQB1H102KH	P.CAPACITOR 50V 1000P	1	
C7307		ECQB1H822KH	P.CAPACITOR 50V 8200P	1	
C7308		ECQB1H102KH	P.CAPACITOR 50V 1000P	1	
C7309		ECQB1H152JH	P.CAPACITOR 50V 1500P	1	
C7310		ECEA16Z10	E.CAPACITOR 16V 10U	1	
C7311		ECEA50ZR47	E.CAPACITOR 50V 0.47U	1	
C7312		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7313		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7314		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7315		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7316		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C7317		ECEA1CK101	E.CAPACITOR 16V 100U	1	
C7318		ECUM1H103ZFN	CHIP 50V 0.01U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C7319		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7320,21		ECEA1CK100	E.CAPACITOR 16V 10U	2	
C7322		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C7323,24		ECQB1H223JH	P.CAPACITOR 50V 0.022U	2	
C7325		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7331		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C7332,33		ECUM1H102KBN	CHIP 50V 1000P	2	
C7334		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7335		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7336		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7337		ECUX1H680JCN	CHIP 50V 68P	1	
C7338		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7339		ECQB1H103KH	P.CAPACITOR 50V 0.01U	1	
C7340		ECUM1H390JPN	C.CAPACITOR CH 50V 39P	1	
C7341		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7342		ECQB1H183JH	P.CAPACITOR 50V 0.018U	1	
C7343		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C7344		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C7345		ECQB1H103KH	P.CAPACITOR 50V 0.01U	1	
C7346		ECUM1H390JPN	C.CAPACITOR CH 50V 39P	1	
C7347		ECUM1H120JCN	C.CAPACITOR CH 50V 12P	1	
C7348		ECQV1H393JZ	P.CAPACITOR 50V 0.039U	1	
C7651		ECEA1CKN100	E.CAPACITOR 16V 10U	1	
C7653		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C7668		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7672		ECEA1HKS010	E.CAPACITOR 50V 1U	1	
C7801		ECQB1H102JH	P.CAPACITOR 50V 1000P	1	
C7802		ECQB1H471JH	P.CAPACITOR 50V 470P	1	
C7803		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C7804		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7805		ECQB1H103JH	P.CAPACITOR 50V 0.01U	1	
C7806		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C7815		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C7816		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C7851		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C7852		ECEA1AK101	E.CAPACITOR 10V 100U	1	
C7853,54		ECCF1H330JC	C.CAPACITOR 50V 33P	2	
C7855,56		ECEA1HK010	E.CAPACITOR 50V 1U	2	
C7860		ECEA0JK101U	E.CAPACITOR 6.3V 100U	1	
D251,252		MA165	DIODE	2	
D301		MA4091	DIODE	1	
D601		MA165	DIODE	1	
D710		MA3100L	DIODE	1	
D803-05		MA165	DIODE	3	
D1001		MA723	DIODE	1	
D1003,04		MA723	DIODE	2	
D1005		MA165	DIODE	1	
D1007		MA154WA	DIODE	1	
D1008		MA165	DIODE	1	
D1010,11		MA165	DIODE	2	
D2001,02		MA165	DIODE	2	
D3002		MA165	DIODE	1	
D3004		MA165	DIODE	1	
D3006		MA723	DIODE	1	
D3009,10		MA165	DIODE	2	
D3011		MA27W	DIODE	1	
D3012		MA165	DIODE	1	
D3608		MA165	DIODE	1	
D4003		MA165	DIODE	1	
D4101		MA165	DIODE	1	
D4501		MA151WK	DIODE	1	
D4901		MA151WA	DIODE	1	
D4903,04		MA165	DIODE	2	
D4905		MA4062L	DIODE	1	
D4906-09		MA165	DIODE	4	
D6001		MA154WK	DIODE	1	
D6003-05		MA165	DIODE	3	
D6007		MA154WA	DIODE	1	
D6009-14		MA165	DIODE	6	
D6016		MA165	DIODE	1	
D6017		MA4100M	DIODE	1	
D6019		MA154WA	DIODE	1	
D6021		MA156	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
D6024		MA4051L	DIODE	1	
D6025		AK04V2	DIODE	1	
D6026		MA165	DIODE	1	
D6027		MA4075M	DIODE	1	
D6029		MA154WK	DIODE	1	
D6032		MA165	DIODE	1	
D6033		MA723	DIODE	1	
D7302		MA151A	DIODE	1	
D7303		MA28WA	DIODE	1	
D7672		MA3300H	DIODE	1	
D7851		MA165	DIODE	1	
DL801		VLD0089	DELAY	1	
DL802		VLD0147	DELAY	1	
FL301		ELB4M022	FILTER	1	
FL302		VLF0499	FILTER	1	
FL303		VLF0727	FILTER	1	
FL801		VLF0299	FILTER	1	
FL851		VLF0143	FILTER	1	
FL3601		ELB4H020	FILTER	1	
FL4501,02		VLF0406	FILTER	2	
FL4503		VLF0697	FILTER	1	
IC251		AN6914	IC	1	OR LM393P,UPC393C
IC301		VEFH03D	HIC	1	
IC302		AN3495K	IC	1	
IC303		MSM6965-3RS	IC	1	
IC701		M51366SP	IC	1	
IC801		VEFH04F	IC	1	
IC851		BA7025L	IC	1	
IC3001		AN3396	IC	1	
IC3602		BA7004	IC	1	
IC3901		TA7348P	IC	1	
IC3902		UPD4001BC	IC	1	
IC4001		BA7766AS	IC	1	
IC4101		RC4560DD	IC	1	
IC4501		BA7700K1	IC	1	
IC4502		UPC78L05J	IC	1	
IC4901		MC14052BCP	IC	1	
IC4902		RC4560DD	IC	1	
IC4903		M5201L	IC	1	
IC4904		AN6558	IC	1	
IC4905		UPC78L06J	IC	1	
IC6001		MN188166VHI	IC	1	
IC6002		MN1280R	IC	1	
IC6003		MC14011BCP	IC	1	
IC6004		LM339N	IC	1	
IC6005		AN6609	IC	1	
IC6006		LM393P	IC	1	
IC6007		MC14519BCP	IC	1	
IC7301		TDA3803A	IC	1	
IC7302,03		AN5215	IC	2	
IC7801		SAA4700	IC	1	
IC7851		MN158413VHW	IC	1	
IC7852		MN1280T	IC	1	
J701		VJR0231	PACK PIN	1	
J702,03		VJR0406	PACK PIN	2	
J704		VJR0231	PACK PIN	1	
J7301,02		VJR0189	PACK PIN	2	
KR851		VJR0163	PACK PIN	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
L301		VLQEL05F101K	COIL 100UH	1	
L302		VLQEL05F220K	COIL 22UH	1	
L303		VLQEL05F101K	COIL 100UH	1	
L304		VLQEL05F121K	COIL 120UH	1	
L305		VLQEL05F680K	COIL 68UH	1	
L306		VLQEL05F101K	COIL 100UH	1	
L307		VLQEL05F151K	COIL 150UH	1	
L308		VLQEL05F270K	COIL 27UH	1	
L309,10		VLQEL05F101K	COIL 100UH	2	
L701,02		ELESP680KA	COIL 68UH	2	
L711		ELQTR68XB	COIL 0.68UH	1	
L712		VLQ0305J1R2	COIL 1.2UH	1	
L714		VLQ0305J1R2	COIL 1.2UH	1	
L715		VLQ0213K680	COIL 68UH	1	
L716		ELESP560KA	COIL 56H	1	
L717,18		ELESP680KA	COIL 68UH	2	
L719		ELESP120KA	COIL 12UH	1	
L781		ELESP680KA	COIL 68UH	1	
L801		VLQEL05F101K	COIL 100UH	1	
L802-04		VLQEL05F150K	COIL 15UH	3	
L805		VLQEL05F101K	COIL 100UH	1	
L806		VLQEL05F681K	COIL 680UH	1	
L808		VLQEL05F470K	COIL 47UH	1	
L809		VLQEL05F331K	COIL 330UH	1	
L810		VLQEL05F101K	COIL 100UH	1	
L811		VLQEL05F470K	COIL 47UH	1	
L812		VLQEL05F681K	COIL 680UH	1	
L851		VLQEL05F101K	COIL 100UH	1	
L2001,02		VLP0085	FILTER	2	
L3001,02		VLQEL05F101K	COIL 100UH	2	
L3003		VLQEL05F120K	COIL 12UH	1	
L3005		VLQEL05F101K	COIL 100UH	1	
L3006		VLQEL05F6R8K	COIL 6.8UH	1	
L3007		VLQEL05F270J	COIL 27UH	1	
L3008		VLQEL05F151K	COIL 150UH	1	
L3009,10		VLQEL05F101K	COIL 100UH	2	
L3013		VLQEL05F820K	COIL 82UH	1	
L3020		VLQEL05F5R6K	COIL 5.6UH	1	
L3611,12		VLQEL05F101K	COIL 100UH	2	
L4001		VLQEL07F822J	COIL 8200UH	1	
L4002		VLQEL05F471K	COIL 470UH	1	
L4102		VLQEL05F1R0K	COIL 1UH	1	
L4104,05		VLQEL05F101K	COIL 100UH	2	
L4501,02		VLQEL05F101K	COIL 100UH	2	
L4901-04		VLQEL05F102K	COIL 1000UH	4	
L4905,06		VLQEL05F101K	COIL 100UH	2	
L7301		ELESP102KA	COIL 1000UH	1	
L7302		ELESP680KA	COIL 68UH	1	
L7304		VTQ0014	COIL	1	
P1101		VJP2593	CONNECTOR	1	
P2001		VJP1242T	CONNECTOR(MALE) 2P	1	
P2002		VJP1141	CONNECTOR(MALE) 2P	1	
P3001		VJP1237T	CONNECTOR(MALE) 10P	1	
P4001		VJP1231T	CONNECTOR(MALE) 4P	1	
P4002		VJP1236T	CONNECTOR(MALE) 9P	1	
P4003		VJP1234T	CONNECTOR(MALE) 7P	1	
P4004		VJP1229T	CONNECTOR(MALE) 2P	1	
P4901		VJP1231T	CONNECTOR(MALE) 4P	1	
P6001		VJS1663	CONNECTOR	1	
P6002		VJS2571A004	CONNECTOR	1	
P6003		VJP1293	CONNECTOR	1	
P7401		VJS2571A013	CONNECTOR	1	
P7402		VJS2571A012	CONNECTOR	1	
P7403		VJS2571A011	CONNECTOR	1	
P7404		VJS2571A008	CONNECTOR	1	
PK1		VJR0189	PACK PIN	1	
PK4501-03		VJR0290	PACK PIN	3	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
Q301		2SB709	TRANSISTOR CHIP	1	
Q302,03		2SC2295	TRANSISTOR	2	
Q304		2SD601	TRANSISTOR CHIP	1	
Q601		2SD636	TRANSISTOR	1	
Q703		2SD601	TRANSISTOR	1	(S,T)
Q710		2SC2377	TRANSISTOR	1	(C,D)
Q712		2SD638	TRANSISTOR	1	
Q771		2SD601	TRANSISTOR CHIP	1	
Q801		2SD601	TRANSISTOR CHIP	1	
Q802		2SD2295	TRANSISTOR	1	
Q804		2SB709	TRANSISTOR CHIP	1	
Q1001		2SC4024LF	TRANSISTOR	1	
Q1002		2SD601	TRANSISTOR CHIP	1	
Q1003		2SD601A	TRANSISTOR	1	
Q1004		2SD1330	TRANSISTOR	1	
Q1005		2SD638	TRANSISTOR	1	(R,S)
Q3001		2SA1309	TRANSISTOR	1	
Q3002		2SC3311	TRANSISTOR	1	
Q3003-05		2SC2295	TRANSISTOR	3	
Q3006		2SC3311	TRANSISTOR	1	
Q3007		2SD601	TRANSISTOR CHIP	1	
Q3009,10		2SD601	TRANSISTOR CHIP	2	
Q3011		2SB709	TRANSISTOR CHIP	1	
Q3013		2SD601	TRANSISTOR CHIP	1	
Q3610		2SC2295	TRANSISTOR	1	
Q3901		2SB709	TRANSISTOR CHIP	1	
Q4001		2SD1992A	TRANSISTOR	1	
Q4103		2SD1328	TRANSISTOR	1	
Q4501		2SD601	TRANSISTOR CHIP	1	
Q4502,03		2SD1306	TRANSISTOR	2	
Q4504		2SD601	TRANSISTOR CHIP	1	
Q4901		2SD601	TRANSISTOR CHIP	1	
Q4902		2SB710A	TRANSISTOR	1	(T,W)
Q6001		2SA1309	TRANSISTOR	1	
Q6002-04		2SA1512	TRANSISTOR	3	
Q6006		2SD893	TRANSISTOR	1	
Q6007		2SD592	TRANSISTOR	1	
Q6008		2SC3311	TRANSISTOR	1	
Q6011		2SD1856	TRANSISTOR	1	
Q6012		2SC3311	TRANSISTOR	1	
Q6013-15		2SD601	TRANSISTOR CHIP	3	
Q7301		2SD601	TRANSISTOR	1	(S,T)
Q7302		2SD1328	TRANSISTOR	1	
Q7303		2SD1328	TRANSISTOR	1	
Q7304,05		2SD601	TRANSISTOR CHIP	2	
Q7306		2SC2404	TRANSISTOR CHIP	1	(C,D)
Q7307		2SD1328	TRANSISTOR	1	
QR251-253		UN2213	TRANSISTOR-RESISTOR	3	
QR301-03		UN2212	TRANSISTOR-RESISTOR	3	
QR701,02		UN2213	TRANSISTOR-RESISTOR	2	
QR711,12		UN2212	TRANSISTOR-RESISTOR	2	
QR801		UN2212	TRANSISTOR-RESISTOR	1	
QR853		UN1213	TRANSISTOR-RESISTOR	1	
QR1001		UN2211	TRANSISTOR-RESISTOR	1	
QR1002		UN2213	TRANSISTOR-RESISTOR	1	
QR1005		UN2213	TRANSISTOR-RESISTOR	1	
QR1006		UN2211	TRANSISTOR-RESISTOR	1	
QR1007		UN4211	TRANSISTOR-RESISTOR	1	
QR2001		UN2211	TRANSISTOR-RESISTOR	1	
QR3001		UN2212	TRANSISTOR-RESISTOR	1	
QR3002		UN2214	TRANSISTOR-RESISTOR	1	<R>
QR3003		UN2111	TRANSISTOR-RESISTOR	1	
QR3004		UN2213	TRANSISTOR-RESISTOR	1	
QR3005		UN2111	TRANSISTOR-RESISTOR	1	
QR3006,07		DTC363EK	TRANSISTOR-RESISTOR	2	
QR3008		UN2212	TRANSISTOR-RESISTOR	1	
QR3009-11		UN2213	TRANSISTOR-RESISTOR	3	
QR3012		DTC363EK	TRANSISTOR-RESISTOR	1	
QR3013		UN2213	TRANSISTOR-RESISTOR	1	
QR4001		UN2213	TRANSISTOR-RESISTOR	1	
QR4101		UN2213	TRANSISTOR-RESISTOR	1	
QR4102		UN2113	TRANSISTOR-RESISTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR4103,04		UN2112	TRANSISTOR-RESISTOR	2	
QR4105		UN2213	TRANSISTOR-RESISTOR	1	
QR4501,02		UN2213	TRANSISTOR-RESISTOR	2	
QR4901		UN2213	TRANSISTOR-RESISTOR	1	
QR6001		UN2212	TRANSISTOR-RESISTOR	1	
QR6002-04		UN2213	TRANSISTOR-RESISTOR	3	
QR6005-09		UN2211	TRANSISTOR-RESISTOR	5	
QR6010		UN2213	TRANSISTOR-RESISTOR	1	
QR6011		UN2211	TRANSISTOR-RESISTOR	1	
QR6013		UN2111	TRANSISTOR-RESISTOR	1	
QR6014		UN2113	TRANSISTOR-RESISTOR	1	
QR6015-17		UN2213	TRANSISTOR-RESISTOR	3	
QR6018		UN2113	TRANSISTOR-RESISTOR	1	
QR6019,20		UN2213	TRANSISTOR-RESISTOR	2	
QR6021		UN2113	TRANSISTOR-RESISTOR	1	
QR6022		UN2111	TRANSISTOR-RESISTOR	1	
QR6024		UN2113	TRANSISTOR-RESISTOR	1	
QR6025		UN2212	TRANSISTOR-RESISTOR	1	
QR6027		UN2213	TRANSISTOR-RESISTOR	1	
QR7301,02		UN2214	TRANSISTOR-RESISTOR	2	<R>
QR7312-14		UN2211	TRANSISTOR-RESISTOR	3	
QR7851		UN1211	TRANSISTOR-RESISTOR	1	
QR7852		UN1213	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R251		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R252		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R253		ERJ6GMYJ393	CHIP 1/10W 39K	1	
R254		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R255		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R256		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R257		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R258		ERJ6GMYJ393	CHIP 1/10W 39K	1	
R259		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R260		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R261		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R262		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R301		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R302		ERJ6GMYJ391	CHIP 1/10W 390	1	
R303		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R304		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R305		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R306		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R307		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R308		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R309		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R310		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R311,12		ERJ6GMYJ392	CHIP 1/10W 3.9K	2	
R313		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R314		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R315		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R317		ERJ6GMYJ471	CHIP 1/10W 470	1	
R318		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R319		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R320		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R325		ERJ6GMYJ151	CHIP 1/10W 150	1	
R326		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R327		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R328		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R329		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R330		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R331		ERJ6GMYJ561	CHIP 1/10W 560	1	
R332		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R334,35		ERJ6GMYJ102	CHIP 1/10W 1K	2	
R338		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R340		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R601		ERDS2TJ683	C.RESISTOR 1/4W 68K	1	
R602		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R712		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R713		ERJ6GEYJ681	CHIP 1/10W 680	1	
R714		ERD2FCG330	C.RESISTOR 2W 33	1	<!>
R715		ERJ6GEYJ271	CHIP 1/10W 270	1	
R716		ERJ6GEYJ152	CHIP 1/10W 1.5K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R717		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R718		ERJ6GEYJ754	CHIP 1/10W 750K	1	
R719,20		ERJ6GEYJ682	CHIP 1/10W 6.8K	2	
R721		ERJ6GEYJ272	CHIP 1/10W 2.7K	1	
R722		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R723		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R724		ERDS2TJ101	C.RESISTOR 1/4W 100	1	
R725		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R726		ERJ6GEYJ472	CHIP 1/10W 4.7K	1	
R727		ERJ6GEYJ471	CHIP 1/10W 470	1	
R728		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R737		ERJ6GEYJ274	CHIP 1/10W 270K	1	
R738		ERJ6GEYJ334	CHIP 1/10W 330K	1	
R740		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R741		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R743		ERJ6GEYJ470	CHIP 1/10W 47	1	
R744		ERJ6GEYJ821	CHIP 1/10W 820	1	
R745		ERJ6GEYJ331	CHIP 1/10W 330	1	
R746		ERDS2TJ181	C.RESISTOR 1/4W 180	1	
R747		ERJ6GEYJ471	CHIP 1/10W 470	1	
R750		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R759		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R772		ERJ6GEYJ271	CHIP 1/10W 270	1	
R773		ERJ6GEYJ124	CHIP 1/10W 120K	1	
R774		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R781		ERJ6GEYJ271	CHIP 1/10W 270	1	
R782		ERJ6GEYJ821	CHIP 1/10W 820	1	
R792		ERDS2TJ120	C.RESISTOR 1/4W 12	1	
R795		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R801		ERJ6GMYJ271	CHIP 1/10W 270	1	
R802		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R803,04		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R805,06		ERJ6GMYJ471	CHIP 1/10W 470	2	
R807		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R808		ERJ6GMYJ681	CHIP 1/10W 680	1	
R809		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R810		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R815		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R816		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R817,18		ERJ6GMYJ102	CHIP 1/10W 1K	2	
R819		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R820		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R821		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R822		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R823		ERJ6GMYJ271	CHIP 1/10W 270	1	
R824		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R825		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R827		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R828		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R851		ERDS2TJ223	C.RESISTOR 1/4W 22K	1	
R852		ERDS2TJ390	C.RESISTOR 1/4W 39	1	
R853		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R854		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R855		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R856		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R858		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1002		ERDS2TJ152	C.RESISTOR 1/4W 1.5K	1	
R1003		ERJ6GMYJ181	CHIP 1/10W 180	1	
R1004		ERDS2TJ333	C.RESISTOR 1/4W 33K	1	
R1005		ERDS1TJ822	C.RESISTOR 1/2W 8.2K	1	
R1006		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R1007		ERJ6GMYG912W	M.RESISTOR CH1/10W 9.1K	1	
R1008		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R1009		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R1010		ERJ6GMYG682	CHIP 1/10W 6.8K	1	
R1011		ERJ6GMYJ561	CHIP 1/10W 560	1	
R1012		ERG2ANJ681U	M.RESISTOR 2W 680	1	
R1013		ERG2ANJ821U	M.RESISTOR 2W 820	1	
R2001		ERJ6GMYJ271	CHIP 1/10W 270	1	
R2002		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R2005		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R2006		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R2007		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R3001		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
R3002		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R3003		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3004		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R3005		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R3006		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R3007,08		ERJ6GMYJ561	CHIP 1/10W 560	2	
R3009		ERJ6GMYJ391	CHIP 1/10W 390	1	
R3010		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3011		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3012		ERJ6GMYJ821	CHIP 1/10W 820	1	
R3014		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3015		ERJ6GMYJ561	CHIP 1/10W 560	1	
R3017		ERJ6GMYJ561	CHIP 1/10W 560	1	
R3019		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R3020		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R3021		ERJ6GMYJ681	CHIP 1/10W 680	1	
R3022		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3023		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R3024		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3025,26		ERJ6GMYJ222	CHIP 1/10W 2.2K	2	
R3027		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3028		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R3030		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R3031		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3032		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R3033		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R3037		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R3038		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R3043		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3047		ERJ6GMYJ821	CHIP 1/10W 820	1	
R3048		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3049		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3054		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R3055		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3056		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R3057		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R3060		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R3632		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R3633		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R3634,35		ERJ6GEYJ152	CHIP 1/10W 1.5K	2	
R3636		ERJ6GEYJ561	CHIP 1/10W 560	1	
R3901,02		ERJ6GEYJ750	CHIP 1/10W 75	2	
R3903,04		ERJ6GEYJ472	CHIP 1/10W 4.7K	2	
R3905,06		ERJ6GEYJ750	CHIP 1/10W 75	2	
R3907		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R3908		ERJ6GEYJ750	CHIP 1/10W 75	1	
R3909,10		ERJ6GEYJ684	CHIP 1/10W 680K	2	
R3911		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R3911		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R3912		ERJ6GEYJ750	CHIP 1/10W 75	1	
R3913		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R3916		ERJ6GEYJ750	CHIP 1/10W 75	1	
R4001		ERJ6GMYJ100	CHIP 1/10W 10	1	
R4002		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4003		ERJ6GMYJ203	CHIP 1/10W 2K	1	
R4004,05		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R4007		ERJ6GMYJ221	CHIP 1/10W 220	1	
R4008		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R4009		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4010		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R4012		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4013		ERJ6GMYJ394W	M.RESISTOR CH1/10W 390K	1	
R4014		ERJ6GMYG133W	M.RESISTOR CH1/10W 13K	1	
R4015		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R4016		ERJ6GMYK225W	M.RESISTOR CH1/10W 2.2M	1	
R4017		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R4018		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4019		ERJ6GMYJ563	CHIP 1/10W 56K	1	
R4020		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R4021		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R4022		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4023		ERJ6GMYG473	CHIP 1/10W 47K	1	
R4024,25		ERJ6GMYG104	CHIP 1/10W 100K	2	
R4026		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R4027		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4029		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4030		ERJ6GMYJ512W	M.RESISTOR CH1/10W 5.1K	1	
R4031		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4101		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4104		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4105,06		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R4107		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4108		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4109		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R4110		EROS2CKG2403	M.RESISTOR 1/4W 240K	1	
R4111		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4112		ERDS2TJ680	C.RESISTOR 1/4W 68	1	
R4113,14		ERJ6GMYJ563	CHIP 1/10W 56K	2	
R4115		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R4116		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R4117		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R4118		ERJ6GMYJ471	CHIP 1/10W 470	1	
R4121		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4501		ERJ6GMYG821W	M.RESISTOR CH1/10W 820	1	
R4502		ERJ6GMYG681W	M.RESISTOR CH1/10W 680	1	
R4503		ERJ6GMYG821W	M.RESISTOR CH1/10W 820	1	
R4504		VRE0034E112	M.RESISTOR 1/4W 1.1K	1	
R4505		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4506		ERJ6GMYG183W	M.RESISTOR CH1/10W 18K	1	
R4507		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R4508		ERJ6GMYG104	CHIP 1/10W 100K	1	
R4510		ERJ6GMYG561W	M.RESISTOR CH1/10W 560	1	
R4511		ERJ6GMYG303W	M.RESISTOR CH1/10W 30K	1	
R4512		VRE0034E133	M.RESISTOR 1/4W 13K	1	
R4513		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4514		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4515		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4516		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R4517		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R4520		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4521		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4522		ERJ6GMYJ225W	M.RESISTOR CH1/10W 2.2M	1	
R4523		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4525,26		ERJ6GMYJ152	CHIP 1/10W 1.5K	2	
R4527		VRE0034E104	RESISTOR	1	
R4528		VRE0034E393	M.RESISTOR 1/4W 39K	1	
R4529		ERJ6GEYG123	CHIP 1/10W 12K	1	
R4530		ERJ6GMYJ334	CHIP 1/10W 330K	1	
R4533		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R4534		VRE0034E152	RESISTOR	1	
R4535		ERJ6GMYJ104	C.RESISTOR 1/4W 100K	1	
R4536		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R4537		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R4539		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R4540		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R4541		ERJ6GMYJ821	CHIP 1/10W 820	1	
R4551		ERJ6GMYG821W	M.RESISTOR CH1/10W 820	1	
R4552		ERJ6GMYG681W	M.RESISTOR CH1/10W 680	1	
R4553		ERJ6GMYG821W	M.RESISTOR CH1/10W 820	1	
R4554		VRE0034E112	M.RESISTOR 1/4W 1.1K	1	
R4555		ERJ6GMYG103	CHIP 1/10W 10K	1	
R4556		ERJ6GMYG183W	M.RESISTOR CH1/10W 18K	1	
R4557		ERJ6GMYG562	CHIP 1/10W 5.6K	1	
R4558		ERJ6GMYG104	CHIP 1/10W 100K	1	
R4560		ERJ6GMYG561W	M.RESISTOR CH1/10W 560	1	
R4561		ERJ6GMYG303W	M.RESISTOR CH1/10W 30K	1	
R4562		VRE0034E912	RESISTOR 9.1K	1	
R4563		VRE0034E49B	M.RESISTOR 1/4W 49	1	
R4564		ERJ6GMYJ331	CHIP 1/10W 330	1	
R4565		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R4566		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R4567		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R4570,71		ERJ6GMYJ682	CHIP 1/10W 6.8K	2	
R4573		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R4574		ERJ6GMYJ560	M.RESISTOR CH1/10W 56	1	
R4575		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R4576		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R4577		ERDS2TJ392	C.RESISTOR 1/4W 3.9K	1	
R4901,02		ERJ6GEYJ222	CHIP 1/10W 2.2K	2	
R4904,05		ERJ6GEYJ391	CHIP 1/10W 390	2	
R4907		ERJ6GEYJ221	CHIP 1/10W 220	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R4909		ERJ6GEYJ221	CHIP 1/10W 220	1	
R4911,12		ERJ6GEYJ222	CHIP 1/10W 2.2K	2	
R4913,14		ERJ6GEYJ471	CHIP 1/10W 470	2	
R4915,16		ERJ6GEYJ393	CHIP 1/10W 39K	2	
R4917		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	1	
R4918		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4919		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	1	
R4920,21		ERJ6GEYJ474	CHIP 1/10W 470K	2	
R4922,23		ERJ6GEYJ393	CHIP 1/10W 39K	2	
R4924		ERDS1FYJ222	C.RESISTOR 1/2W 2.2K	1	
R4925,26		ERJ6GEYG203	M.RESISTOR CH1/10W 20K	2	
R4927		ERJ6GEYJ153	CHIP 1/10W 15K	1	
R4928		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4929		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R4930,31		ERJ6GEYJ684	CHIP 1/10W 680K	2	
R4932		ERJ6GEYG392	M.RESISTOR CH1/10W 3.9K	1	
R4933,34		ERJ6GEYG222	CHIP 1/10W 2.2K	2	
R4935		ERJ6GEYG392	M.RESISTOR CH1/10W 3.9K	1	
R4936,37		ERJ6GEYJ474	CHIP 1/10W 470K	2	
R4938,39		ERJ6GEYJ124	CHIP 1/10W 120K	2	
R4940,41		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R4942		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4943		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R4944-46		ERJ6GEYJ473	CHIP 1/10W 47K	3	
R4947		ERJ6GEYJ123	CHIP 1/10W 12K	1	
R4948,49		ERJ6GEYJ473	CHIP 1/10W 47K	2	
R4950		ERJ6GEYJ123	CHIP 1/10W 12K	1	
R4951		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R4952		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4953		ERJ6GEYG222	CHIP 1/10W 2.2K	1	
R4954		ERJ6GEYJ682	CHIP 1/10W 6.8K	1	
R4955		ERJ6GEYG222	CHIP 1/10W 2.2K	1	
R4956		ERJ6GEYJ244	M.RESISTOR CH1/10W 240K	1	
R4957		ERJ6GEYJ334	CHIP 1/10W 330K	1	
R6001		ERJ6GMYJ471	CHIP 1/10W 470	1	
R6002		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R6003		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6004		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6005		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6006,07		ERJ6GMYJ332	CHIP 1/10W 3.3K	2	
R6008		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6009		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6010,11		ERJ6GMYJ562	CHIP 1/10W 5.6K	2	
R6016		ERJ6GMYJ271	CHIP 1/10W 270	1	
R6017		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6018		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6019		ERJ6GMYJ121	M.RESISTOR CH1/10W 120	1	
R6020		ERG2SJ180	M.RESISTOR 2W 18	1	
R6021		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6023		ERD2FCVG220	C.RESISTOR 2W 22	1	<!>
R6028		ERJ6GMYJ471	CHIP 1/10W 470	1	
R6029		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6030		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6031		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R6032		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R6033		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6034		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6035		ERSB30JR90	M.RESISTOR 1/4W 0.9	1	
R6036		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6038		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6039,40		ERJ6GMYJ182	CHIP 1/10W 1.8K	2	
R6041		ERJ6GMYJ561	CHIP 1/10W 560	1	
R6042		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6043,44		ERJ6GMYJ223	CHIP 1/10W 22K	2	
R6045,46		ERJ6GMYJ473	CHIP 1/10W 47K	2	
R6047		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R6048-50		ERJ6GMYJ103	CHIP 1/10W 10K	3	
R6051,52		ERJ6GMYJ564	M.RESISTOR CH1/10W 560K	2	
R6054		ERJ6GMYK395W	M.RESISTOR CH1/10W 3.9M	1	
R6055		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6056		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R6057		ERJ6GMYJ153	CHIP 1/10W 15K	4	
R6058		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6059		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R6060		ERJ6GMYJ333	CHIP 1/10W 33K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6061		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6062,63		ERJ6GMYJ564	M.RESISTOR CH1/10W 560K	2	
R6064-66		ERJ6GMYJ683	CHIP 1/10W 68K	3	
R6067		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R6068		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R6069		ERJ6GMYK395W	M.RESISTOR CH1/10W 3.9M	1	
R6071		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6072		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6073-75		ERJ6GMYJ333	CHIP 1/10W 33K	3	
R6076		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6077,78		ERJ6GMYJ101	CHIP 1/10W 100	2	
R6079		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6080		ERJ6GMYJ681	CHIP 1/10W 680	1	
R6081,82		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R6083		ERJ6GMYJ681	CHIP 1/10W 680	1	
R6084		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6085		ERJ6GMYJ184	CHIP 1/10W 180K	1	
R6087		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6088		ERJ6GMYJ184	CHIP 1/10W 180K	1	
R6089		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R6090		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6091		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R6092		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R6093		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R6094-98		ERJ6GMYJ271	CHIP 1/10W 270	5	
R6099,00		ERJ6GMYJ222	CHIP 1/10W 2.2K	2	
R6101		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R6102		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6103		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R6104		ERJ6GMYJ562	CHIP 1/10W 5.6K	1	
R6105		ERJ6GMYJ271	CHIP 1/10W 270	1	
R6106		ERJ6GMYJ561	CHIP 1/10W 560	1	
R6107,08		ERJ6GMYJ472	CHIP 1/10W 4.7K	2	
R6109		ERJ6GMYJ561	CHIP 1/10W 560	1	
R6110		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6111		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R6112		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R6113		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R6114		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R6115		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R6119-22		ERJ6GMYJ103	CHIP 1/10W 10K	4	
R6123		ERDS2TJ182	C.RESISTOR 1/4W 1.8K	1	
R7302		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R7303		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R7304		ERJ6GEYJ392	CHIP 1/10W 3.9K	1	
R7305		ERJ6GEYJ822	CHIP 1/10W 8.2K	1	
R7306		ERJ6GEYJ471	CHIP 1/10W 470	1	
R7307		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R7308		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R7309		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R7310		ERJ6GEYJ474	CHIP 1/10W 470K	1	
R7311		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7312		ERJ6GEYJ563	CHIP 1/10W 56K	1	
R7313		ERJ6GEYJ824	CHIP 1/10W 820K	1	
R7314,15		ERJ6GEYJ224	CHIP 1/10W 220K	2	
R7316		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7317		ERJ6GEYJ393	CHIP 1/10W 39K	1	
R7318		ERJ6GEYJ153	CHIP 1/10W 15K	1	
R7321,22		ERJ6GEYJ102	CHIP 1/10W 1K	2	
R7323		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7324		ERDS2TJ391	C.RESISTOR 1/4W 390	1	
R7325		ERJ6GEYJ391	CHIP 1/10W 390	1	
R7329		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7330		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7331		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7333		ERJ6GEYJ562	CHIP 1/10W 5.6K	1	
R7334-37		ERJ6GEYJ471	CHIP 1/10W 470	4	
R7338		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R7339		ERJ6GEYJ330	CHIP 1/10W 33	1	
R7340		ERJ6GEYJ152	CHIP 1/10W 1.5K	1	
R7341		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7342		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7343,44		ERJ6GEYJ471	CHIP 1/10W 470	2	
R7345		ERJ6GEYJ182	CHIP 1/10W 1.8K	1	
R7346		ERJ6GEYJ221	CHIP 1/10W 220	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R7347		ERJ6GEYJ681	CHIP 1/10W 680	1	
R7348		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R7349		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7350		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
R7351		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7656		ERJ6GEYJ221	CHIP 1/10W 220	1	
R7676		ERG1SJ332	M.RESISTOR 1W 3.3K	1	
R7801		ERDS2TJ472	C.RESISTOR 1/4W 4.7K	1	
R7802		EROS2CKG7502	M.RESISTOR 1/4W 75K	1	
R7803,04		ERDS2TJ103	C.RESISTOR 1/4W 10K	2	
R7805		ERDS2TJ473	C.RESISTOR 1/4W 47K	1	
R7806		EROS2CKG3601	M.RESISTOR 1/4W 3.6K	1	
R7851		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R7852		ERDS2TJ332	C.RESISTOR 1/4W 3.3K	1	
R7860		ERDS2TJ471	C.RESISTOR 1/4W 470	1	
SW4902		VSS0236	SWITCH	1	
T703		EIV5EC013A	TRANSFORMER	1	
T704		EIV5EC006A1	TRANSFORMER	1	
T710		EULBEF023	TRANSFORMER	1	
T851		ELM7Q207A	COIL	1	
T4001		EIQ7QF013Q	TRANSFORMER	1	
T7301		EIR7QG001B	IF TRANSFORMER	1	
T7302,03		EIL7QH011Q	TRANSFORMER	2	
T7304		EIS5EC007A	TRANSFORMER	1	
T7305		EIS5EC005A	TRANSFORMER	1	
VR301		EVNDRAA00B24	V.RESISTOR 20K	1	
VR302		EVN3ACA00B23	V.RESISTOR 2K	1	
VR701,02		EVM4LGA00B23	V.RESISTOR 2K	2	
VR741		EVNDRAA00B14	V.RESISTOR 10K	1	
VR801		EVN3ACA00B52	V.RESISTOR 500	1	
VR802		EVN3ACA00B13	V.RESISTOR 1K	1	
VR803		EVNDRAA00B14	V.RESISTOR 10K	1	
VR2001		EVND4AA00B54	V.RESISTOR 50K	1	
VR2006		EVND4AA00B15	V.RESISTOR 100K	1	
VR2009,10		EVND4AA00B25	V.RESISTOR 200K	2	
VR2011		EVND4AA00B15	V.RESISTOR 100K	1	
VR2013		EVND4AA00B23	VARIABLE 2K	1	
VR2018,19		EVND4AA00B15	V.RESISTOR 100K	2	
VR3012,13		EVND4AA00B52	V.RESISTOR 500	2	
VR3020		EVND4AA00B53	V.RESISTOR 5K	1	
VR4001		EVND4AA00B14	V.RESISTOR 10K	1	
VR4002		EVND4AA00B25	V.RESISTOR 200K	1	
VR4004		EVND4AA00B53	V.RESISTOR 5K	1	
VR4501		EVN3ACA00B53	V.RESISTOR 5K	1	
VR4502		EVN3ACA00B24	V.RESISTOR 20K	1	
VR4503		EVND4AA00B23	VARIABLE 2K	1	
VR4505		EVND1AA00B14	V.RESISTOR 10K	1	
VR4507		EVN3ACA00B24	V.RESISTOR 20K	1	
VR4509		EVN3ACA00B53	V.RESISTOR 5K	1	
VR4510		EVN4LCA00B25	V.RESISTOR 200K	1	
VR4512		EVND1AA00B22	V.RESISTOR 200	1	
VR7301		EVN38CA00B14	V.RESISTOR 10K	1	
VR7326		EVN38CA00B52	V.RESISTOR 500	1	
VR7328		EVN38CA00B52	V.RESISTOR 500	1	
VR7340		EVNE4AA00B14	V.RESISTOR 10K	1	
VR7342		EVNE4AA00B53	V.RESISTOR 5K	1	
VR7344		EVNE4AA00B14	V.RESISTOR 10K	1	
X301		VSX0225	CRYSTAL OSCILLATOR	1	
X710		EFCH38MSP2	CRYSTAL OSCILLATOR	1	
X711		EFCS5R5MW5	FILTER	1	
X715		ELB5A043	FILTER	1	
X716		EFCA31R90M1	CRYSTAL OSCILLATOR	1	
X717		EFCA40R40M1	FILTER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
X801		VSX0162	CRYSTAL OSCILLATOR	1	
X3601		VSX0099	CRYSTAL OSCILLATOR	1	
X6001		VSX0306	CRYSTAL OSCILLATOR	1	
X6002		VSQ0565	SENSOR	1	
X7301,02		EFCS5R5MS5B	CRYSTAL OSCILLATOR	2	
X7303,04		EFCS5R74MS5B	CRYSTAL OSCILLATOR	2	
X7305		ELB5A016	FILTER	1	
X7851		EFOA4ROM03C2	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC1068	HEAT SINK	1	
		VSC1323	TR.HEAT SINK	1	
		VSC2713	SHIELD (MAIN)	1	FOR TV DEMODU.PACK
		VSC2712	SHIELD (TOP)	1	FOR TV DEMODU.PACK
		VSC2714	SHIELD (BOTTOM)	1	FOR TV DEMODU.PACK
		ENC17956	RF COVERTER UNIT	1	<!>
		ENV57830H6	TUNER UNIT	1	<!>
	■	VEP02325B	SERVO PACK C.B.A.		(NLA)
			CAPACITORS		
C201		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C202		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C203		ECQB1H333JH	P.CAPACITOR 50V 0.033U	1	
C204		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C205		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C206		ECEA0JKN220	E.CAPACITOR 6.3V 22U	1	
C207		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C208		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C209		ECUX1H471KBN	CHIP 50V 470P	1	
C210		ECEA0JK220	E.CAPACITOR 6.3V 22U	1	
C2201		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C2204		ECQV1H683JZ	P.CAPACITOR 50V 0.068U	1	
C2205		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C2206		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2207		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2208		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2209		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C2210		ECQB1H332JH	P.CAPACITOR 50V 3300P	1	
C2211		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C2212		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2213		ECEA1CKN4R7	E.CAPACITOR 16V 4.7U	1	
C2214		ECQV1H224JZ	P.CAPACITOR 50V 0.22U	1	
C2215		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2216		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2217		ECEA1CKN4R7	E.CAPACITOR 16V 4.7U	1	
C2218		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2219		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C2220		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2221		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
C2222		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C2223		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2224		ECUM1H220JCN	CHIP 50V 22P	1	
C2225		ECUM1H181JCN	C.CAPACITOR CH 50V 180P	1	
C2226		ECUM1H101JCN	CHIP 50V 100P	1	
C2227,28		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C2229		ECEA1AK330	E.CAPACITOR 10V 33U	1	
C2230		ECEA1CU470	E.CAPACITOR 16V 47U	1	
C2231		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2232		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C2233-35		ECEA1HK2R2	E.CAPACITOR 50V 2.2U	3	
C2236		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2237-39		ECQB1H333JH	P.CAPACITOR 50V 0.033U	3	
C2240		ECUM1H222KBN	CHIP 50V 2200P	1	
C2241		ECQV1H474JZ	P.CAPACITOR 50V 0.47U	1	
C2242		ECQV1H473JZ	P.CAPACITOR 50V 0.047U	1	
C2243		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C2244		ECSF1CE105	T.CAPACITOR 16V 1U	1	
C2245		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
C2246		ECEA10M47	E.CAPACITOR 10V 47U	1	
C2247		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2248,49		ECUM1H472KBN	CHIP 50V 4700P	2	
C2250		ECQB1H223JH	P.CAPACITOR 50V 0.022U	1	
C2251		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2262		VCYD1C333MR1	S.CAPACITOR 16V 0.033U	1	
C2263		ECEA1HK3R3	E.CAPACITOR 50V 3.3U	1	
C2264		ECEA1EU221	E.CAPACITOR 25V 220U	1	
C2265		ECUM1H472KBN	CHIP 50V 4700P	1	
C2266		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C2267,68		ECUM1H151JCN	CHIP 50V 150P	2	
C2269		ECQV1H104JZ	P.CAPACITOR 50V 0.1U	1	
D201-04		MA165	DIODE	4	
D2201-04		MA165	DIODE	4	
D2205		MA4056M	DIODE	1	
D2212		MA165	DIODE	1	
D2216,17		MA165	DIODE	2	
IC201		LM358P	IC	1	
IC202		RZ4066BD	IC	1	
IC2201		AN3726K	IC	1	
IC2202		MN4013BS	IC	1	
IC2203		MN1280R	IC	1	
IC2204		MN4052BS	IC	1	
IC2205		MN6742VCWK	IC	1	
IC2206		BA6435S	IC	1	
L2201-03		VLQEL05F101K	COIL 100UH	3	
L2204		VLQEL05F1R0H	COIL 1UH	1	
P2201		VJP1245T	CONNECTOR(MALE) 5P	1	
P2202		VJS1666	CONNECTOR (FEMALE)	1	
P2203		VJP1141	CONNECTOR(MALE) 2P	1	
Q201		2SD601	TRANSISTOR CHIP	1	
Q2201		2SD601	TRANSISTOR CHIP	1	
Q2202		2SC2295	TRANSISTOR	1	
Q2203		2SD602	TRANSISTOR CHIP	1	
Q2204-09		2SD601	TRANSISTOR CHIP	6	
QR201		UN2213	TRANSISTOR-RESISTOR	1	
QR2201,02		UN2117	TRANSISTOR-RESISTOR	2	
QR2206-09		UN2213	TRANSISTOR-RESISTOR	4	
QR2210		UN2212	TRANSISTOR-RESISTOR	1	
QR2213		UN2112	TRANSISTOR-RESISTOR	1	
QR2214,15		UN2213	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R201,02		ERJ6GEYJ223	CHIP 1/10W 22K	2	
R203		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R204		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R205		ERJ6GEYJ222	CHIP 1/10W 2.2K	1	
R206		ERJ6GEYJ683	CHIP 1/10W 68K	1	
R207,08		ERJ6GEYJ183	CHIP 1/10W 180K	2	
R209		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R210		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R211		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R212		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R213		ERJ6GEYJ272	CHIP 1/10W 2.7K	1	
R214		ERJ6GEYJ684	CHIP 1/10W 680K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R215		ERJ6GEYJ273	CHIP 1/10W 27K	1	
R216		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R217		ERJ6GEYJ333	CHIP 1/10W 33K	1	
R218		ERJ6GEYJ183	CHIP 1/10W 180K	1	
R219		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R220		ERJ6GEYJ221	CHIP 1/10W 220	1	
R221		ERJ6GEYJ333	CHIP 1/10W 33K	1	
R222		ERJ6GEYJ271	CHIP 1/10W 270	1	
R223		ERJ6GEYJ122	CHIP 1/10W 1.2K	1	
R2201		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R2202		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R2203		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R2204		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2205		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R2206		ERJ6GMYJ123	CHIP 1/10W 12K	1	
R2207		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R2208		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R2209		ERJ6GMYJ471	CHIP 1/10W 470	1	
R2210		ERJ6GMYJ154	CHIP 1/10W 150K	1	
R2211-13		ERJ6GMYJ223	CHIP 1/10W 22K	3	
R2214		ERJ6GMYJ272	CHIP 1/10W 2.7K	1	
R2215,16		ERJ6GMYJ332	CHIP 1/10W 3.3K	2	
R2217		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2218		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R2219		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R2220		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2221		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R2222		ERJ6GMYJ824	CHIP 1/10W 820K	1	
R2223,24		ERJ6GMYJ103	CHIP 1/10W 10K	2	
R2225		ERJ6GMYJ124	CHIP 1/10W 120K	1	
R2226		ERJ6GMYJ821	CHIP 1/10W 820	1	
R2227		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2228		ERJ6GMYJ183	CHIP 1/10W 18K	1	
R2229-33		ERJ6GMYJ102	CHIP 1/10W 1K	5	
R2236		ERJ6GMYG362W	M.RESISTOR CH1/10W 3.6K	1	
R2237		ERJ6GMYG821W	M.RESISTOR CH1/10W 820	1	
R2238,39		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2240		ERX12SJR47E	M.RESISTOR 1/2W 0.47	1	
R2241,42		ERDS2TJ330	C.RESISTOR 1/4W 33	2	
R2243		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R2244		ERJ6GMYJ682	CHIP 1/10W 6.8K	1	
R2245		ERJ6GMYJ182	CHIP 1/10W 1.8K	1	
R2246		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2247		ERJ6GMYG334W	M.RESISTOR CH1/10W 330K	1	
R2248		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R2249		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R2250		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2251		ERJ6GMYJ151	CHIP 1/10W 150	1	
R2252		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R2253,54		ERJ6GMYJ821	CHIP 1/10W 820	2	
R2255		ERJ6GMYJ822	CHIP 1/10W 8.2K	1	
R2256		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2257		ERJ6GMYJ681	CHIP 1/10W 680	1	
R2258		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R2259		ERJ6GMYJ683	CHIP 1/10W 68K	1	
R2260		ERJ6GMYJ392	CHIP 1/10W 3.9K	1	
R2261		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R2266		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2288		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R2289		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R2290		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R2291		ERJ6GMYJ104	CHIP 1/10W 100K	1	
R2292		ERJ6GMYG392W	M.RESISTOR CH1/10W 3.9K	1	
X2201		VSX0225	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VSC0075	HEAT SINK	1	
		VMC0075	HEAT SINK HOLD SPRING	1	
		VMZ1352	HEAT SINK COVER	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
	■	VEP01353A	POWER C.B.A.		(NLA)<!>
			CAPACITORS		
C1101		ECQU2A104MNB	M.CAPACITOR 100V 0.01U	1	<!>
C1102		ECQU2A683MN	P.CAPACITOR 100V 0.068U	1	<!>
C1108		ECOS2GU820	C.CAPACITOR 400V 80P	1	
C1109		ECEA2GG010	E.CAPACITOR 400V 1U	1	
C1110		ECQE6473MZ	P.CAPACITOR 630V 0.047U	1	
C1111		ECKD3D331KBN	C.CAPACITOR 2KV 330P	1	
C1112		ECQB1H682JZ	P.CAPACITOR 50V 6800P	1	
C1113		ECQV1H334JZ	P.CAPACITOR 50V 0.33U	1	
C1114		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1115		ECQB1H103JZ	P.CAPACITOR 50V 0.01U	1	
C1117		ECQP1101T404	M.CAPACITOR 100V 100P	1	
C1118		ECEA1HGE101	E.CAPACITOR 50V 100U	1	
C1119,20		ECEA1DPS681X	E.CAPACITOR 20V 680U	2	
C1121		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1122		ECEA1AFZ331P	E.CAPACITOR 10V 330U	1	
C1123		ECEA1HGE100	E.CAPACITOR 50V 10U	1	
C1124,25		ECEA1AGE101	E.CAPACITOR 10V 100U	2	
C1126		ECEA1CGE470	E.CAPACITOR 16V 47U	1	
C1127		ECEA0JFZ471	E.CAPACITOR 6.3V 470U	1	
C1128-31		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	4	
C1132		ECEA1CGE100	E.CAPACITOR 16V 10U	1	
C1134,35		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	2	
C1136		ECQV1H105JZ	P.CAPACITOR 50V 1U	1	
C1142		VCC0021	CAPACITOR	1	<!>
C1145		VCC0021	CAPACITOR	1	<!>
C1147		VCC0022	CAPACITOR	1	<!>
C1149		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
D1102		S1WBA60	DIODE	1	<!>
D1103		VSD0002	DIODE	1	<!>
D1104		AP01C	DIODE	1	
D1105		MA178	DIODE	1	
D1106		MA4030L	DIODE	1	
D1107		MA165	DIODE	1	
D1108		ERA22-02	DIODE	1	
D1109		RL4ZPLF	DIODE	1	
D1110		MA185	DIODE	1	
D1111		31DQ04FC6	DIODE	1	
D1112		ERB83-004	DIODE	1	
D1113		MA2200B	DIODE	1	
D1114		MA4130L	DIODE	1	
IC1101		STRD6008X	IC	1	
IC1102		STK5391	IC	1	
IC1103		SE013E	IC	1	
L1101,02		ELF18D290A	CFILTER	2	<!>
L1103		VLQ0335	COIL	1	
P1101		VJP1929T	CONNECTOR (MALE)	1	
P1102		VJS2625	CONNECTOR	1	
Q1101		PC111	PHOTO COUPLER	1	
Q1102		2SD1330	TRANSISTOR	1	
			RESISTORS		

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R1101		ERC12GM334	S.RESISTOR 1/2W 330K	1	<!>
R1102,03		ERDS1TJ563	C.RESISTOR 1/2W 56K	2	
R1104		ERDS2TJ562	C.RESISTOR 1/4W 5.6K	1	
R1105		ERDS2TJ102	C.RESISTOR 1/4W 1K	1	
R1106		ERG3ANJ683	M.RESISTOR 3W 68K	1	
R1107		ERDS2TJ561	C.RESISTOR 1/4W 560	1	
R1108		ERD2FTVG681	C.RESISTOR 1/4W 680	1	<!>
R1109		ERDS2TJ221	C.RESISTOR 1/4W 220	1	
R1110		ERG2SJ180	M.RESISTOR 2W 18	1	
R1111		ERG3SJ270	M.RESISTOR 3W 27	1	
R1113		ERG1SJ182E	M.RESISTOR 1W 1.8K	1	
R1114		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R1123,24		ERDS2TJ474	C.RESISTOR 1/4W 470K	2	
R1125		ERW1PK2R2	W.RESISTOR 1/2W 2.2	1	
T1101		VLT0569	TRANSFORMER	1	<!>
			MISCELLANEOUS		
		VJF0318	FUSE HOLDER	4	<!>
		VMZ1183	CAPACITOR COVER	1	<!>
		VMZ1184	CAPACITOR COVER	1	<!>
	■	VEP05134B	HEAD AMP C.B.A.		(NLA)
			CAPACITORS		
C501		ECUM1H102KBN	CHIP 50V 1000P	1	
C502,03		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C504		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C505		ECUM1H102KBN	CHIP 50V 1000P	1	
C507,08		ECUM1H103ZFN	CHIP 50V 0.01U	2	
C509		ECUM1H332KBN	CHIP 50V 3300P	1	
C511		ECUM1E473ZFN	CHIP 25V 0.047U	1	
C513		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C514		ECEA1CK220	E.CAPACITOR 16V 22U	1	
C515		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C516		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C517		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C518		ECUM1H150JCN	CHIP 50V 15P	1	
C519,20		ECUM1E104ZFN	CHIP 25V 0.1U	2	
C523		ECUM1H150JCN	CHIP 50V 15P	1	
C524,25		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C527		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C530		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C532		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	1	
C533		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C534		ECUM1H102KBN	CHIP 50V 1000P	1	
C535		VCYD1C104MR1	S.CAPACITOR 16V 0.1U	1	
C536		ECUM1H102KBN	CHIP 50V 1000P	1	
C537		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C551		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C552		VCEA1AAC470	E.CAPACITOR 10V 47U	1	
C553		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C555-59		ECUM1H103ZFN	CHIP 50V 0.01U	5	
C560		ECEA0JPK470	E.CAPACITOR 6.3V 47U	1	
C561		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C562,63		ECUM1H471KBN	CHIP 50V 470P	2	
C564,65		ECUM1H101JCN	CHIP 50V 100P	2	
C566		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C567		ECUM1H101JCN	CHIP 50V 100P	1	
C569		ECUM1H050DCN	CHIP 50V 5P	1	
D501,02		MA165	DIODE	2	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
IC501		AN3334K	IC	1	
IC502		VCR0271	IC	1	
IC551		BA7740FS	IC	1	
L502		VLQ0188K330	COIL 33UH	1	
L504		VLQEL05F101K	COIL 100UH	1	
L505		VLQ0188K330	COIL 33UH	1	
L506		VLQ0188K6R8	COIL 6.8UH	1	
L551,52		VLQEL05F101K	COIL 100UH	2	
L553,54		VLQ0213K2R2	COIL 2.2UH	2	
P501		VJP1250T	CONNECTOR(MALE) 10P	1	
P502		VJS2603	CONNECTOR	1	
P551		VJP1236T	CONNECTOR(MALE) 9P	1	
Q501		2SB709	TRANSISTOR CHIP	1	
			RESISTORS		
R501		ERJ6GMYJ472	CHIP 1/10W 4.7K	1	
R502		ERJ6GMYJ334	CHIP 1/10W 330K	1	
R503		ERJ6GMYJ223	CHIP 1/10W 22K	1	
R504,05		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	2	
R507		ERJ6GMYJ152	CHIP 1/10W 1.5K	1	
R508		ERJ6GMYJ122	CHIP 1/10W 1.2K	1	
R510		ERJ6GMYJ471	CHIP 1/10W 470	1	
R512		ERJ6GMYJ331	CHIP 1/10W 330	1	
R513		ERJ6GMYJ821	CHIP 1/10W 820	1	
R514		ERJ6GMYJ100	CHIP 1/10W 10	1	
R515		ERJ6GMYJ821	CHIP 1/10W 820	1	
R516		ERJ6GMYJ561	CHIP 1/10W 560	1	
R517,18		ERJ6GMYJ100	CHIP 1/10W 10	2	
R519		ERJ6GMYJ561	CHIP 1/10W 560	1	
R520		ERJ6GMYJ331	CHIP 1/10W 330	1	
R521		ERJ6GMYJ100	CHIP 1/10W 10	1	
R522		ERJ6GMYJ101	CHIP 1/10W 100	1	
R523		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R551,52		ERJ6GMYJ473	CHIP 1/10W 47K	2	
R553		ERJ6GMY0R00	M.RESISTOR CH1/10W 0.00	1	
R554		ERJ6GMYJ333	CHIP 1/10W 33K	1	
R555		ERJ6GMYJ243W	M.RESISTOR CH1/10W 24K	1	
R556		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R557		ERJ6GMYJ103	CHIP 1/10W 10K	1	
R558		ERJ6GMYJ273	CHIP 1/10W 27K	1	
R559		ERJ6GMYJ153	CHIP 1/10W 15K	1	
R560		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R561,62		ERJ6GMYJ152	CHIP 1/10W 1.5K	2	
R563		ERJ6GMYJ332	CHIP 1/10W 3.3K	1	
R564		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R565		ERJ6GMYJ100	CHIP 1/10W 10	1	
R566,67		ERJ6GMYJ471	CHIP 1/10W 470	2	
R568		ERJ6GMYJ221	CHIP 1/10W 220	1	
VR501,02		EVND1AA00B23	V.RESISTOR 2K	2	
			MISCELLANEOUS		
		VSC2668	SHIELD COVER(TOP)	1	
		VSC2669	SHIELD COVER(BOTTOM)	1	
		VSC2670	SHIELD COVER(MAIN)	1	
	■	VEP06533B	VR C.B.A.		(NLA)

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
			CAPACITORS		
C6301,02		ECQB1H103KH	P.CAPACITOR 50V 0.01U	2	
C6501,02		ECQB1H223KH	P.CAPACITOR 50V 0.022U	2	
C6503		ECEA1AKS330	E.CAPACITOR 10V 33U	1	
C6504		ECEA1EKS3R3	E.CAPACITOR 25V 3.3U	1	
C6505		ECEA1CKS330	E.CAPACITOR 16V 33U	1	
C6507		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
C6508,09		ECQV1H124JZ	P.CAPACITOR 50V 0.12U	2	
C6510		ECKF1H103ZF	C.CAPACITOR 50V 0.01U	1	
D6501		LN21RCPHL	LED	1	
IC6501		VCR0172	IC	1	
J6301		VJJ0192	CONNECTOR	1	
J6302		VJJ0210	CONNECTOR	1	
L6301,02		VLQ0188J221	COIL 220UH	2	
L6501,02		VLQEL05F471K	COIL 470UH	2	
P6501		VJP1247T	CONNECTOR(MALE) 7P	1	
P6502		VJS2357A015	CONNECTOR	1	
P6503		VJP1252T	CONNECTOR(MALE) 12P	1	
P6504		VJP1244T	CONNECTOR(MALE) 4P	1	
			RESISTORS		
R6501		EROS2CKG1601	M.RESISTOR 1/4W 1.6K	1	
R6502		EROS2CKG2000	M.RESISTOR 1/4W 200	1	
R6503		EROS2CKG1601	M.RESISTOR 1/4W 1.6K	1	
R6504		EROS2CKG2000	M.RESISTOR 1/4W 200	1	
R6505		EROS2CKG1102	M.RESISTOR 1/4W 11K	1	
R6506		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6507		ERDS2TJ222	C.RESISTOR 1/4W 2.2K	1	
SW6501		EVQQS307K	SWITCH	1	
VR3004		EWAKFKXB3B24	V.RESISTOR 20K	1	
VR6501		EWAKABXB3C23	V.RESISTOR 2K	1	
VR6503		EWANYGX05J24	V.RESISTOR 20K	1	
	■	VEP06537A	JOG/SHUTTLE C.B.A.		(NLA)
D6701-03		LN38GCPP	LED	3	
P6701		VJS2621	CONNECTOR	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
QR6701		UN1112	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R6701		ERDS2TJ271	C.RESISTOR 1/4W 270	1	
R6702		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	
R6703		EROS2CKG1802	M.RESISTOR 1/4W 18K	1	
R6704-06		EROS2CKG1801	M.RESISTOR 1/4W 1.8K	3	
R6707		EROS2CKG1002	M.RESISTOR 1/4W 10K	1	
R6708		ERDS2TJ681	C.RESISTOR 1/4W 680	1	
R6709		EROS2CKG9102	M.RESISTOR 1/4W 91K	1	
R6710		EROS2CKG1202	M.RESISTOR 1/4W 12K	1	
R6711		EROS2CKG6802	M.RESISTOR 1/4W 68K	1	
R6712		EROS2CKG3302	M.RESISTOR 1/4W 33K	1	
R6713		EROS2CKG5102	M.RESISTOR 1/4W 51K	1	
R6714		EROS2CKG1203	M.RESISTOR 1/4W 120K	1	
SW6701		EVQQS307K	SWITCH	1	
			MISCELLANEOUS		
		VJF0691	JACK HOLDER	1	
	■	VEP07527B	TIMER C.B.A.		(NLA)
			CAPACITORS		
C6701		ECEA0JK470I	E.CAPACITOR 6.3V 47U	1	
C6702		ECKF1H331KB	C.CAPACITOR 50V 330P	1	
C6703		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6704		ECEA1HK3R3I	E.CAPACITOR 50V 3.3U	1	
C7501		ECRHA030E41	TRIMER 30P	1	
C7502		ECUM1H080DCN	CHIP 50V 80P	1	
C7503		ECUM1H330JCN	CHIP 50V 33P	1	
C7504		ECUM1H220JCN	CHIP 50V 22P	1	
C7505		ECEA0JK221	E.CAPACITOR 6.3V 220U	1	
C7506		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7507		ECEA1HKR22	E.CAPACITOR 50V 0.22U	1	
C7508		ECUM1H103ZFN	CHIP 50V 0.01U	1	
C7509		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7510		ECEA0JK470	E.CAPACITOR 6.3V 47U	1	
C7511		ECEA1HKA100	E.CAPACITOR 50V 10U	1	
C7512		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7513		ECUX1H560JCN	CHIP 50V 56P	1	
C7514		ECUM1H101JCN	CHIP 50V 100P	1	
C7520		ECEA0JK330	E.CAPACITOR 6.3V 33U	1	
C7521		ECUM1E104ZFN	CHIP 25V 0.1U	1	
C7522		ECUM1H223ZFN	CHIP 50V 0.022U	1	
C7523,24		ECEA1EK4R7	E.CAPACITOR 25V 4.7U	2	
C7525		ECKF1H821KB	C.CAPACITOR 50V 820P	1	
D6701		PN323B	PHOTO DIODE	1	
D7501		MA3068	DIODE	1	
D7504		MA73	DIODE	1	
D7507		MA73	DIODE	1	
D7510,11		MA73	DIODE	2	
D7513		MA73	DIODE	1	
D7516,17		MA73	DIODE	2	
D7530		MA73	DIODE	1	
D7532-41		MA73	DIODE	10	
D7550,51		LN28RCPL	DIODE	2	
D7553		LN28RCPL	DIODE	1	
D7555		LN28RCPL	DIODE	1	
D7556		LN38GCPL	DIODE	1	
D7557		LN28RCPL	DIODE	1	
D7560		MA73	DIODE	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
DP7501		VSL0144	DISPLAY TUBE	1	
IC6701		UPC1490HA	IC	1	
IC7501		MN187125VHP	IC	1	
IC7502		MN12261	IC	1	
IC7503		MN1280L	IC	1	
IC7504		MN1280T	IC	1	
IC7505		BA6810S	IC	1	
L7501		VLQEL05F221K	COIL 220UH	1	
P7501		VJS2616B013	CONNECTOR	1	
P7502		VJS2616B012	CONNECTOR	1	
P7503		VJS2616B011	CONNECTOR	1	
P7505		VJS2357A020	CONNECTOR (FEMALE)	1	
P7506		VJS2616B008	CONNECTOR	1	
P7507		VJP2621	CONNECTOR	1	
Q7501		2SD601	TRANSISTOR CHIP	1	
QR7501		UN2213	TRANSISTOR-RESISTOR	1	
QR7502		UN2112	TRANSISTOR-RESISTOR	1	
QR7503		UN2113	TRANSISTOR-RESISTOR	1	
QR7505		UN2111	TRANSISTOR-RESISTOR	1	
QR7510,11		UN2112	TRANSISTOR-RESISTOR	2	
			RESISTORS		
R6701		ERDS2TJ154	C.RESISTOR 1/4W 150K	1	
R6702		ERDS2TJ8R2	C.RESISTOR 1/4W 8.2	1	
R6703		ERDS2TJ103	C.RESISTOR 1/4W 10K	1	
R6703		ERDS2TJ133	C.RESISTOR 1/4W 13K	1	
R6703		ERDS2TJ153	C.RESISTOR 1/4W 15K	1	
R6703		ERDS2TJ183	C.RESISTOR 1/4W 18K	1	
R7501		ERJ6GEYJ122	CHIP 1/10W 1.2K	1	
R7502		ERJ6GEYJ224	CHIP 1/10W 220K	1	
R7503		ERJ6GEYJ221	CHIP 1/10W 220	1	
R7504		ERJ6GEYJ101	CHIP 1/10W 100	1	
R7505		ERJ6GEYJ104	CHIP 1/10W 100K	1	
R7506		ERJ6GEYJ821	CHIP 1/10W 820	1	
R7507		ERJ6GEYJ152	CHIP 1/10W 1.5K	1	
R7508-10		ERJ6GEYJ103	CHIP 1/10W 10K	3	
R7511		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	
R7512		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7513		ERJ6GEYJ223	CHIP 1/10W 22K	1	
R7514		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7523-28		ERJ6GEYJ182	CHIP 1/10W 1.8K	6	
R7529-32		ERJ6GEYJ332	CHIP 1/10W 3.3K	4	
R7533		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7534		ERJ6GEYJ473	CHIP 1/10W 47K	1	
R7536		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7538		ERJ6GEYJ103	CHIP 1/10W 10K	1	
R7539		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7540		ERJ6GEYG223	CHIP 1/10W 22K	1	
R7541		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7542-44		ERJ6GEYJ473	CHIP 1/10W 47K	3	
R7547		ERJ6GEYJ102	CHIP 1/10W 1K	1	
R7548		ERJ6GEYJ181	CHIP 1/10W 180	1	
R7549		ERJ6GEYJ332	CHIP 1/10W 3.3K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
RX7501		EXBF11E104J	RESISTOR-RESISTOR	1	
RX7502		EXBF8E104J	COMBINATION RARTS	1	
X7501		VSX0140	CRYSTAL OSCILLATOR	1	
X7502		VSX0094	CRYSTAL OSCILLATOR	1	
			MISCELLANEOUS		
		VJF0693	FIP HOLDER	1	
		VMD1343	LED SPACER	1	
		VSC2671	SHIELD (TOP)	1	
		VSC2672	SHIELD (BOTTOM)	1	
	■	VEP00M86A	FG AMP C.B.A.		(NLA)
			CAPACITORS		
C1510		ECUM1H101JCN	CHIP 50V 100P	1	
C1511		ECUM1H104ZFM	C.CAPACITOR 50V 0.1U	1	
C1512		ECEA1CK470U	E.CAPACITOR 16V 47U	1	
C1513		ECUM1H101JCN	CHIP 50V 100P	1	
C1514		ECUM1H104ZFM	C.CAPACITOR 50V 0.1U	1	
IC1501		UPC358G	IC	1	
L1510,11		VLP0083	FILTER	2	
P1505		VJS1456	CONNECTOR(FEMALE)	1	
P1506		VJS1685	CONNECTOR	1	
			RESISTORS		
R1510		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R1511		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R1512		ERJ6GMYJ105	CHIP 1/10W 1M	1	
R1513-16		ERJ6GMYJ332	CHIP 1/10W 3.3K	4	
R1517		ERJ6GMYJ105	CHIP 1/10W 1M	1	
R1518		ERJ6GMYJ102	CHIP 1/10W 1K	1	
R1519		ERJ6GMYJ473	CHIP 1/10W 47K	1	
	■	VEP00N05A	CYLINDER DRIVE C.B.A.		(NLA)
			CAPACITORS		
C2901-03		ECEA1VSN2R2	E.CAPACITOR 35V 2.2U	3	
C2904-06		ECUM1E104KBM	C.CAPACITOR CH 25V 0.1U	3	
C2907		ECUM1E683KBM	C.CAPACITOR CH 25V 0.068U	1	
C2908		ECUM1E473KBM	C.CAPACITOR CH 25V 0.047U	1	
C2909		ECQV1H104JS	P.CAPACITOR 50V 0.1U	1	
C2910,11		ECEA1CKS100	E.CAPACITOR 16V 10U	2	
C2912		ECEA0JKS220	E.CAPACITOR 6.3V 22U	1	
IC2901		AN3815K	IC	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P2901		VJP2603	CONNECTOR	1	
P2902		VJP1232T	CONNECTOR(MALE) 5P	1	
			RESISTORS		
R2901		ERX12ANJR47	M.RESISTOR 1/2W 0.47	1	
	■	VEP66079B	REMOTE CONTROLLER C.B.A.		(NLA)
			CAPACITORS		
C6801		ECEA1AKA470	E.CAPACITOR 10V 47U	1	
C6802		ECUM1E104ZFM	CHIP 25V 0.1U	1	
C6803		ECEV1CAN4R7	E.CAPACITOR 16V 4.7U	1	
C6804		ECEA1HK010	E.CAPACITOR 50V 1U	1	
C6805,06		ECUM1H330JCN	CHIP 50V 33P	2	
C6807-09		ECUM1H103ZFN	CHIP 50V 0.01U	3	
C6810-12		ECUM1E104ZFM	CHIP 25V 0.1U	3	
D1		LN247RCALUVT	DIODE	1	
D6801		SE303ACYTF	DIODE	1	
D6802-11		MA221	DIODE	10	
D6813		MA221	DIODE	1	
D6819		MA221	DIODE	1	
IC6801		MN158453VHM	IC	1	
IC6802		AN8355S	IC	1	
L6801		ELT3K017B	COIL	1	
Q1		PN147-RSVT	TRANSISTOR	1	
Q6801		2SB710	TRANSISTOR CHIP	1	(Q,R,S)
Q6802		2SB709	TRANSISTOR CHIP	1	(Q,R,S)
Q6803		2SD601	TRANSISTOR CHIP	1	(Q,R,S)
QR6802		FA1A4M	RESISTOR-RESISTOR	1	
QR6803		FA1L4Z	TRANSISTOR-RESISTOR	1	
			RESISTORS		
R14		ERJ6GMYJ473	CHIP 1/10W 47K	1	
R15		ERJ6GMYJ153V	M.RESISTOR CH1/10W 15K	1	
R16		ERJ6GMYJ334V	M.RESISTOR CH1/10W 330K	1	
R6801		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6802-04		ERJ6GMYJ474	CHIP 1/10W 470K	3	
R6805,06		ERJ6GMYJ682	CHIP 1/10W 6.8K	2	
R6807		ERJ8GCYJ120	M.RESISTOR CH 1/8W 12	1	
R6808		ERJ8GCYJ150	M.RESISTOR CH 1/8W 15	1	
R6809		ERJ6GMYJ222	CHIP 1/10W 2.2K	1	
R6810		ERJ6GMYJ224	CHIP 1/10W 220K	1	
R6811		ERJ6GMYJ684	CHIP 1/10W 680K	1	
R6812		ERJ6GMYJ563	CHIP 1/10W 56K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
R6813		ERJ6GMYJ120	CHIP 1/10W 12	1	
SN6801		VSQ0567	SENSOR	1	
VR6801		EVNDXAA03B34	V.RESISTOR 30K	1	
X6801		VSX0245	CRYSTAL OSCILLATOR	1	
X6802		EFBAL30D001K	CRYSTAL OSCILLATOR	1	
	■	VEP00K88C	FE HEAD C.B.A.		(NLA)
			CAPACITORS		
C1401		ECEA1CK100	E.CAPACITOR 16V 10U	1	
C1402		ECQB1H472JH	P.CAPACITOR 50V 4700P	1	
C1403		ECQB1H333KH	P.CAPACITOR 50V 0.033U	1	
CR1401		EXED103Z333C	C & R	1	
L1401		VLQEL05F101K	COIL 100UH	1	
P1502		VJP1148	CONNECTOR	1	
Q1401		2SD636	TRANSISTOR	1	(R)
T1401		EIQ7QF012Q	TRANSFORMER	1	
	■	VXA3553	MECHANISM CONNECTION C.B.A.		(NLA)
P1504		VJS1493	CONNECTOR 15P	1	
IC1501,2		ON2170	PHOTO COUPLER	2	
			PHOTO TR (T) C.B.A.		
C1502		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
R1503		ERDS2TJ222	C.RESISTOR 1/2W 2.2K	1	

Ref.No.		Part No.	Part Name & Description	Pcs	Remarks
P1508		VJS2165	CONNECTOR 6P	1	
Q1502		PN150NV	PHOTO TR	1	
		VMD0645	PHOTO TR HOLDER	1	
	■	VEK3578	PHOTO TR C.B.A.		(NLA)
C1501		ECKF1H102KB	C.CAPACITOR 50V 1000P	1	
Q1501		PN150NV	PHOTO TR	1	
		VMD0645	PHOTO TR HOLDER	1	